

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

RETURN TO POMOLOGY
SECTION OF NOMENCLATURE

INDEXED

MAR 10 1916



Wichita Nurseries

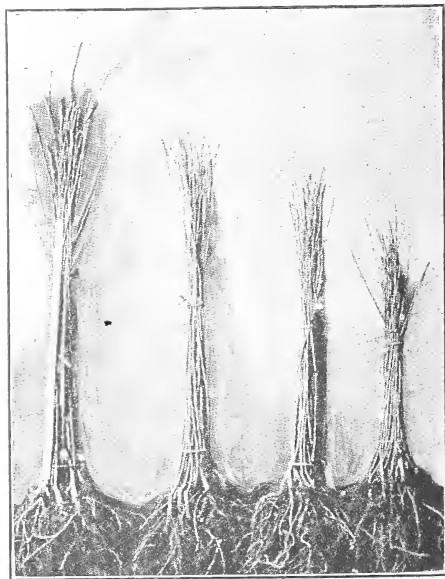
W. F. SCHELL
PROPRIETOR

Wichita, Kansas

FRUIT TREES : PLANTS : ORNAMENTALS

TABLE OF CONTENTS

	Page		Page
Almond, Flowering	24	Pecan	30
Althea, or Rose of Sharon	24	Persimmon	30
Ampelopsis	26	Pine, Austrian or Black	31
Apples	3, 4, 5, 6	Pine, Scotch	31
Apricots	14	Pine, White	31
Arbor-Vitae, American	30	Plums	12
Arbor-Vitae, Pyramidalis	30	Privet	27
Ash, White	28	Prunus Pissardii, Purple Leaved	29
Asparagus	21	Quinces	14
Balsam Fir	30	Raspberries	16-17
Barberry, Japanese	27	Rhubarb	21
Bermuda Easter Lily	27	Roses	22, 23, 24
Bignonia Radicans	26	Snowball	25
Birch Cut-Leaf Weeping	30	Spirea Aurea	25
Birch, White	29	Spirea Billardi	25
Blackberries	17	Spirea Van Houttei	25
Box Elder	29	Spruce, Colorado Blue	31
Butternut	30	Spruce, Norway	31
Calycanthus	25	Strawberries	19, 20, 21
Carolina Poplar	29	Suggestions to Planters	31, 32, 33, 34
Catalpa Bungei, or Umbrella Tree	30	Syringa	25
Catalpa Speciosa	29	Tea's Weeping Mulberry	30
Cherries	13-14	Tigritum L.	27
Chestnut, American Sweet	30	Trees	28, 29, 30, 31
Chestnut, Horse	29	Tree Lilacs	25
Clematis	26	Tulips	27
Crab, Bechtel's Double Flowering	29	Walnut, Black	30
Crocus	27	Walnut, English	30
Currants	18	Weigela Rosea	25
Dahlias	27	Willow, Kilmarnock Weeping	30
Deutzia	25	Wistaria	26
Dewberry	18		
Elm, American White	29		
Elm, Camperdown Weeping	30		
Evergreens	30-31		
Flowering Shrubs	24-25		
Fringe, Purple	29		
Fringe, White	29		
Gladiolus	27		
Golden Elder	25		
Golden Glow	27		
Gooseberries	18-19		
Grapes	15-16		
Hardy Climbing Vines	26		
Hardy Herbaceous Perennials	27		
Hedge Plants	27-28		
Honeysuckle	26		
Honeysuckle, Upright	25		
Hydrangea Paniculata Grandiflora	25		
Jonquils	27		
Lancifolium Roseum L.	27		
Lilac	25		
Lilies	27		
Lilium Auratum	27		
Linden, American	29		
Loganberry	17		
Maple, Norway	29		
Maple, Silver-Leaf	29		
Maple, Sugar	29		
Mountain Ash	29		
Mountain Ash, European Weeping	30		
Osage Orange	28		
Paeonies	27		
Peaches	9, 10, 11, 12		
Pears	7-8		



5-6 ft. 4-5 ft. 3-4 ft. 2-3 ft.
One-Year Budded Apple, Graded, Ready for shipment.

MAR 10 1916



Schell's Annual Message

It is a pleasure to be able to hand you this, my forty-first annual message to the people of the great Southwest

As you turn these pages you will find only such varieties of fruits described that are adapted to your soil and climate. Hardy, thrifty, vigorous growers and heavy bearers. Varieties gleaned from a lifetime of experience in growing and fruiting of trees in this great Southwest. These descriptions are brief and accurate, giving their good points and their faults. In brief, what you want to know about a variety before you decide to plant it.

The Price—Naturally that's what we all consider first. No doubt you have seen trees advertised at lower prices than it actually costs to grow them. You know as well as any man that it requires a certain amount of labor, at a certain cost, either per day, or per job, to plow ground, cultivate it and set out and bud the young trees, and carefully nurse them to the point where they are ready to set out into the orchards of farmers, fruit-growers, and town folks, everywhere. You know that if you keep in business and make a living, you must necessarily make a profit. Once in a while a nurseryman will have a surplus of reliable, honest, true-to-name, carefully grown stock that he can sell at a lower price than usual. But when you see trees advertised at a few pennies each—look out for those trees. You can't get something for nothing and have something worth while. My prices are for quality stock grown right—cost, with just a small margin of profit added. Agents, dealers, middleman's profits go to you on my DIRECT TO YOU Sales Plan.

You don't want trees of unknown origin—uncertain ability—just because the price is low. You don't want cull stock at any price. I don't substitute a lot of cull stock merely to get an order. I would rather lose your order than do such a thing. You might think that I was doing you a good turn by selling you stock so cheap. The stock would look **just as good** as the "other fellows," but after waiting patiently for it to come into bearing it proved worthless, you wouldn't feel like placing an order with me again, would you? You wouldn't feel kindly toward me either. My business has been built on a record of satisfied customers, customers that come back year after year. And my business has grown from year to year.

It won't pay YOU to take a chance by buying the cheap stock because it is cheap. Start right by buying quality trees at a fair price from a firm with a reputation for a **Square Deal**, from a firm that has an **A1 Financial Standing**. If you haven't confidence in the man you are about to deal with, get your banker to tell you about him. We court investigation. We will be glad to give you evidence that amounts to something to convince you that every tree you order from us will be a first-class—regular high-quality Wichita Nurseries Tree.

Club Orders—Many of my patrons write me about taking club orders. They wish to go out and get their friends' and neighbors' orders and thereby add a little to their income. So I have fixed up this plan of ordering: On all orders of \$10.00 or more, you may add stock to your own order to the amount of 10 per cent of the club order. On orders amounting to \$25.00, you may add stock to the value of 15 per cent; on orders of \$50.00 or more you may add stock to the value of 25 per cent. A few hours' work among your friends will enable you to secure all the stock you wish yourself without cost to you, other than your time and labor. My prices are so low you can easily secure a few orders. Also the lady of the house finds it easy to sell her neighbors and friends a few shrubs, roses or plants and earn her own flowers without cost. Drop me a line and say: "I want to get up a club." Then I will send you full instructions and extra order sheets.

In closing I want to say, get your orders in early before the large stocks I have are broken, so you can get first choice; later some of the varieties may be sold out and I will have to give you a variety ripening near the same season.

To all my customers of past years I want to say right here, I thank you for the business you have given me and I will strive just as hard in the future to merit your patronage as I have in the past. I am going to endeavor to make Schell Quality, Schell Prices, Schell Service, mean more to you now than it ever has before.

Yours sincerely,

Wm. F. Schell

Guaranteed True to Name

This is something that you should not fail to consider, particularly since you will get nothing from us but first-class trees, guaranteed true to name.

In ordering, be sure and state whether you want stock shipped by express, freight or parcel post. Parcel post charges must be remitted to us to cover cost. If you do not do this, we will use our own judgment. Frankly, this is the best plan in many cases, for we know the best methods of transportation for boxes and packages of certain size.

We sell for cash. Orders should, of course, be placed early before our assortment is broken. The early buyer has no trouble in securing any variety we list. In the season our assortment is broken, and it is often impossible to furnish some varieties, and our customers are often disappointed. For spring planting, we advise customers to place orders in the fall and let us put them aside, then they will have no trouble in securing what they want. Many buyers follow this plan and we advise it.

Warranty: While we exercise the greatest care to have all our trees and plants genuine and reliable, and hold ourselves prepared to replace, on proper proof, all that may prove untrue to name, we do not give any warranty, expressed or implied, and in case of error on our part, it is mutually agreed between the purchaser and ourselves that we shall not, at any time, be held responsible for a greater amount than the original price of the trees.

Claims: All claims for errors and deficiencies must be made within five days after the receipt of stock. We desire to be notified of mistakes as early as possible, so we may rectify same without delay.

We aim to have every sale a satisfactory one.

Our stock is first class and will be packed in the best manner.

Our prices are as low as we can afford for first-class stock.



Scene in Peach Orchard

Entomological Commission of Kansas, Office of State Entomologist,
University of Kansas.

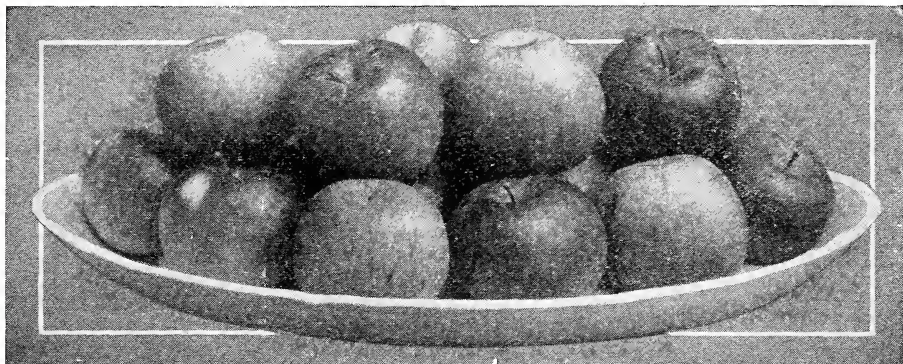
No. A 559 CERTIFICATE OF NURSERY INSPECTION

Lawrence, Kan., June 24, 1915.

This Is to Certify, That in accordance with Chapter 386, Section 7, of Session Laws of 1907, the nursery stock now growing for sale by the Wichita Nurseries, W. F. Schell, Prop., at Winfield, Kansas, has been inspected by a duly authorized inspector, and found apparently free from dangerously injurious insects or plant diseases.

S. J. HUNTER, State Entomologist.

Invalid after June 1, 1916.



Apples

Hardiness, productiveness and general commercial value, all taken into consideration, the apple stands at the head of our list of fruits. It is the most widely distributed and there have been more improvements in varieties. We grow apple trees by the tens of thousands for the commercial planters and for those who are planting home orchards.

Carolina Red June. An extremely attractive apple of medium size, deep fleshy red; flesh crisp, breaking with a mild, sub-acid flavor; white, very tender flesh; the tree is an upright grower of moderate size and bears young and abundantly. June to July.

Duchess of Oldenburg. A handsome red striped apple that is popular especially for cooking. It is a Russian sort that is widely planted, especially in sections where hardiness is a consideration. September.

Early Harvest. An old, well-known, pale waxy-yellow apple, with an occasional faint blush; tender flesh, brisk sub-acid and a favorite with many. It is nearly round, somewhat flattened and the tree is healthy and strong growing, and bears good crops. July.

Red Astrachan. A Russian variety; hence extremely hardy and, while of only fairly good quality, is planted largely in the North. The tree is vigorous, and, like all Russian sorts, grows upright and produces big crops. Fruit is medium to large, marbled and striped red on greenish yellow ground. Very acidic. August.

Sweet June. Tree is strong, upright, very productive. Fruit small to medium, round; greenish yellow; flesh white, fine grained, tender. June and July.

Yellow Transparent. Probably the most popular of all the Russian varieties; it is a rich, almost transparent yellow, with a faint blush on the sun-exposed side; the flesh is melting, juicy, sub-acid; good in quality; the tree is hardy, very upright, comes into bearing young and bears every year. August.

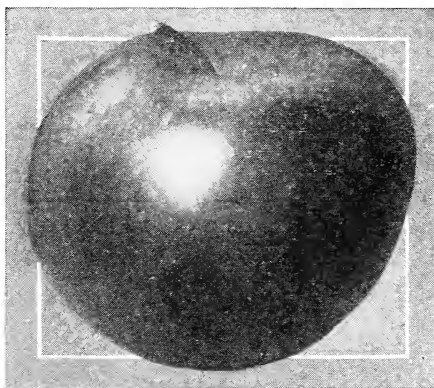
Maiden Blush. A beautiful apple, pale lemon yellow, with crimson cheek; flesh is white, tender, sprightly with a pleasant sub-acid flavor. A standard market sort, and prices are always good. August to October.

Rambo. An old well-known sort of medium size, mottled and striped with red and carmine. Not largely planted now, but is a favorite with many. September to November.

Liveland Raspberry. A Russian apple, medium to large; clear waxen white, oftentimes marbled with crimson; mild sub-acid. Season August.

Winter Apples

Arkansas Black. Of medium size, glorious dark red in color, and fair to good in



Arkansas Black

quality. Is particular as to locality, reaching its highest perfection in the fruit valleys of the Southwest. An A-1 cooking apple. Keeps until May.

Ben Davis. Large, red striped; white flesh; tree thrifty, upright in growth and almost perfect shape. It has made more money for American orchardists than any other sort.

Delicious. Crisp, very juicy, good keeper. Cooks easily and requires no sugar. It is an "all-purpose" apple. A king commercially. Fine for dessert. A good cooking apple. There are many good apples, but if you want the best you want the Delicious.

Gano. Of the Ben Davis type, but very superior. The fruit is even larger than Ben Davis and is a solid dark red with few stripes. The tree has all the characteristics of Ben Davis and will bear as many bushels of fruit year in and year out. One of the best shippers. January to April.

Grimes Golden. Without a shadow of a doubt the best yellow apple. Grimes Golden and Jonathan are an ideal combination for an apple orchard of mid-winter sorts. The markets are never glutted with these kinds. It is above medium in size, cylindrical in shape, yellow flesh and with a peculiar, never-to-be-forgotten flavor that has made it one of the most popular of all the American apples. It is a holiday fruit and should be marketed by the last of January.

Jonathan. One of the most popular apples grown, and is found in orchards East, West, North and South. Its glorious red color and its sparkling juiciness has made it one of the best liked market varieties. It is an "all-purpose" apple, and the tree is rugged, strong growing and a regular bearer.

Mammoth Black Twig (Arkansas). A large apple, over-spread with dull red, with generally a green cast along the top of the fruit. It is of the Winesap type and is of good quality. Will keep until late spring.

Missouri Pippin. A bright red, medium size apple, oblong and shape and of fair quality. The tree comes into bearing extremely early and bears tremendous crops; in fact, generally requires thinning.

Northwestern Greening. Fruit medium to large, averaging from seven to eight ounces each, and very uniform in size. Color greenish yellow, flesh juicy, firm, fine grained. Very fine quality and flavor. Tree is very hardy and thrifty grower, an early and continuous bearer. One of the longest keepers known. January to spring.

Ralls (Jeniton). A favorite of our grandfathers when it was a standard of excellence. In late years, however, planting of it has decreased, as it is not profitable commercially, the fruit becoming smaller as the tree ages. In quality it is very fine, a rich,



Delicious—King of All Apples

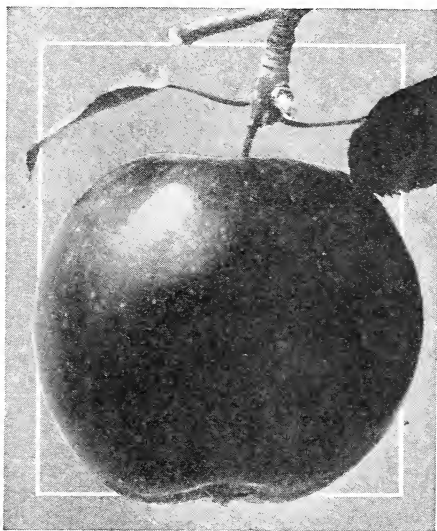
sparkling juice that is ideal for cider. We still recommend it for the home orchard. Will keep until spring.

Rome Beauty. A well-known commercial apple that is planted in all sections and is popular everywhere. The fruit is large, red striped and the flesh crisp and juicy. The tree is thoroughly dependable. Will keep until March.

Russet. Medium to large, greenish or yellow russet, crisp, good sub-acid flavor; productive, very popular on account of its long keeping; vigorous. December to May.

Snow (Fameuse). Similar to Mackintosh and preferred by many. Of medium size, bright red in color, with snow-white flesh that is rich and juicy. All varieties of this type, including Mackintosh, Scarlet Pippin and Shiawassee, are perfectly hardy. Keeps until mid-winter.

Staymen Winesap. A dark rich red apple with indistinct stripes. Larger than the old Winesap you are familiar with. A heavy bearer. Flesh is firm, juicy and of spicy



Rome Beauty



Stayman Winesap

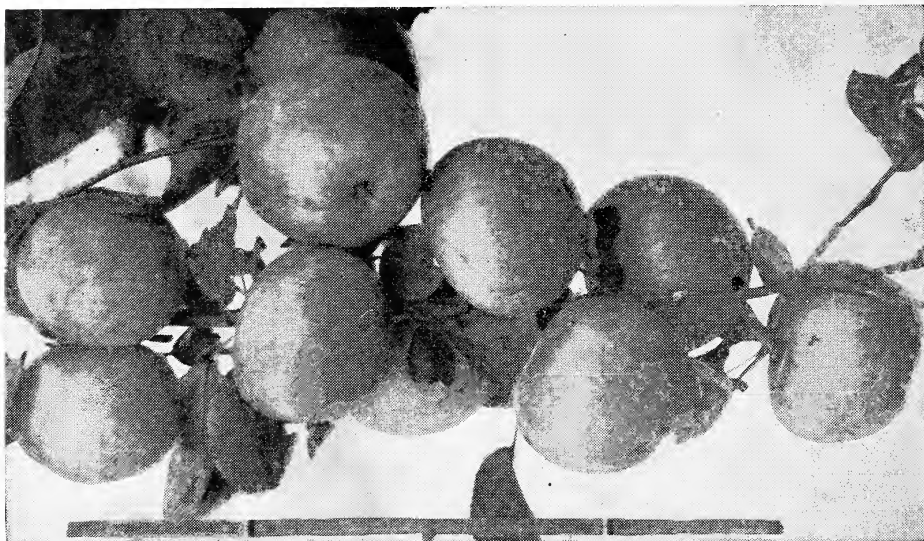
flavor. Tree stands dry weather well, thrives on poor soils where the old kind would not grow. A great keeper. You cannot buy too many of this variety.

Talman Sweet. Medium size, pale yellow, slightly tinged with red; firm, rich and sweet; excellent for preserving; tree vigorous, very hardy and productive. November to April.

Winesap. A large, deep red apple that is planted in every apple-growing state in the Union. Kansas, Missouri, Iowa, all the Central West, grow them by the thousands, while in the apple sections of Virginia, West Virginia and Maryland they are by far the most widely planted. In the Far West, Washington, Oregon, Idaho, California, etc., Winesap is the standard sort. Its beauty, its splendid quality and ideal tree characteristics rank it with the very best kinds. Will keep until May.

Winter Banana. Large, golden-yellow fruit with beautiful shadings of bright crimson. The most beautiful apple we know. The name comes from the faint banana flavor which is at once recognized when you bite into it. The tree is hardy, bears regularly. November to March.

York Imperial. Is being planted largely in all apple-growing regions, and is becoming more and more popular. Keeps as well as Albemarle Pippin, and the quality is good. It is large in size, the surface almost covered with mixed bright red. The apple is instantly recognized because of its lopsided shape.



Baird's Winter Wonder Crab

Crab Apples

We offer several of the best sorts of crabs. A few years ago the crab was thought good only for cider, preserves and jelly, but there are varieties that now command good prices on the markets for dessert purposes. Especially is this the case with the Whitney, which is large and of really good quality. Florence and Hyslop are two other crabs that are great improvements. All of them are ornamental when in bloom and no tree is more beautiful when loaded with fruit. A few crab trees should be planted on all home grounds to at least supply fruit for home use.

Florence. A great, handsome crab of really good quality. Is crimson in color, splashed with a dark red. Ready for use in September.

Hyslop. Tree a moderate grower, making a beautiful shaped and thrifty tree; bears young; fruit large, nearly round, flattened at the ends; skin smooth, color dark rich red on yellow ground; flavor very good.

Transcendent. Planting of this sort is on the decrease. Thousands of acres of them were planted in Montana and other Western regions within the past fifteen years, but blight has injured them badly. We recom-

mend Florence and Hyslop instead. The fruit is of good size. Its yellow ground is almost covered with bright red. August and September.

Whitney No. 20. An extremely large crab apple, yellow striped with lively red; good in quality. The tree is a thrifty, upright grower and comes into bearing young. Splendid for jelly. August.

Baird's Winter Wonder Crab. The following letter from Mr. Baird, under date of August 13, 1914, will be of interest: "The tree is in fine condition, notwithstanding the extreme heat and drouth we had last year and also this year; it is literally covered with fruit. I estimate the crop at 20 bushels this year.

This tree is now over 25 years old. It has been in full bearing for the last 15 years. It has not missed a crop in 15 years. The fruit is uniform in size and shape—is a little over the average size of largest crabs—color dark red when ripe; season from October until the last of May—and then some; flavor sub-acid, juicy and crisp; the longest keeper on earth. Will come in bearing in 5 years from graft or 3 years from the time the trees are set out.



Bartlett

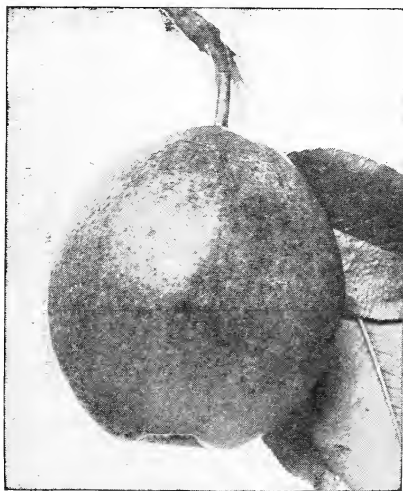
Pears

The pear succeeds on most soils, but does best on rather heavy loam. Budded on its own stock, it makes what is called a standard tree; but on quince stock it make a dwarf. Standards are best adapted to large, permanent orchards, but dwarfs come into bearing very much sooner and may be planted much closer together. Dwarfs must always be planted sufficiently deep to cover the quince stock two or three inches.

Bartlett. Probably the most widely known of all pears. A market favorite and the standard in quality. It is of large size, often beautifully blushed on the sunny side; buttery, very juicy, highly flavored. Comes into bearing young and bears good crops. Is entirely dependable. Planted in nearly all pear sections. August and September.

Clapp's Favorite. Pale yellow pear, marked with pale crimson. Flesh is fine grained, juicy, buttery, sweet and good. Tree is a vigorous, upright grower, and bears good crops. Fruit should be picked before it is fully ripe. August and early September.

Anjou (Beurre d'Anjou). Fast becoming one of the most popular pears. The Western pear orchards brought Anjou into prominence years ago and planting has spread to all sections. Its good qualities and good tree characteristics have made a favorite both in the commercial and home orchard. Fruit is large, dull yellowish green; flesh is



Clapp's Favorite

juicy, melting, with brick perfumed flavor. October.

Angouleme (Duchess). Extremely large, pale greenish-yellow, oblong pear, that is popular both because of the strong growing tree and the handsome, well-flavored fruit. Planted largely in all sections. October.

Flemish Beauty. A large and beautiful pear; juicy, melting, large and fine. Tree is a good bearer, and its hardiness makes it a favorite far north. However, it succeeds everywhere and is popular in the Southwest. We recommend it. September and October.

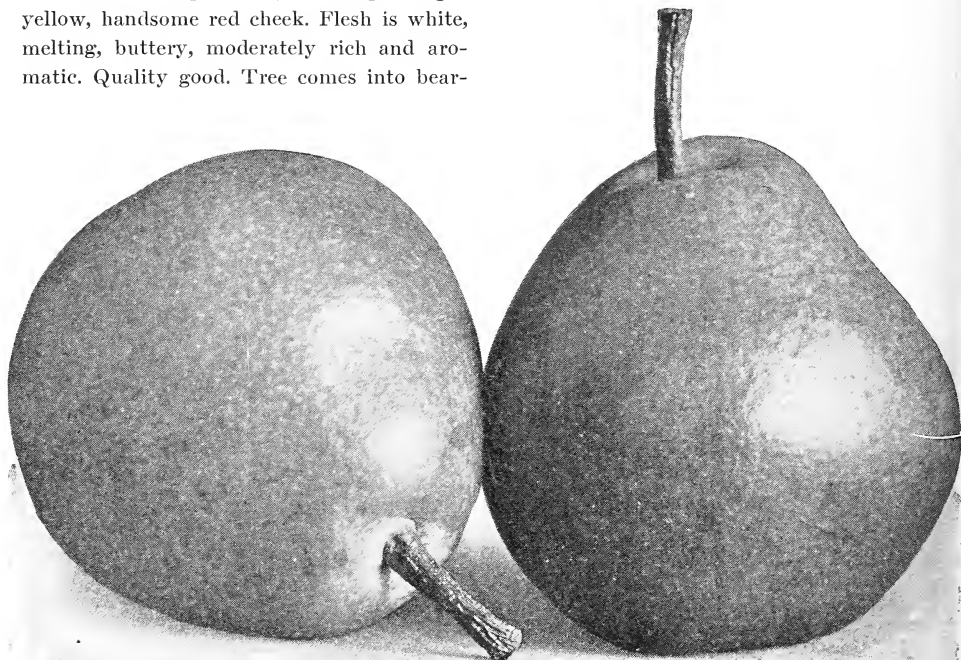
Garber. A very large pear, yellow as an orange, white flesh, that is juicy and pleasant. Planted largely throughout the United States as a pollenizer for Kieffer. September.

Howell. A large, nearly round pear, light yellow, handsome red cheek. Flesh is white, melting, buttery, moderately rich and aromatic. Quality good. Tree comes into bear-

ing young and can be depended upon for good crops. September and October.

Kieffer. Large, golden yellow, often blushed in the sun; juicy and melting. One of the best for canning and preserving; the most profitable to grow. Tree healthy, hardy and vigorous. Does not succeed on quince and, therefore, no dwarfs should be planted. Kieffer receives more praise and condemnation than any other. It seems to be losing favor in some regions on account of its low quality. It is liable to overbear, therefore special pains should be taken to thin the fruit.

Seckel. Best in quality of all pears. A favorite with all pear lovers. It is a small pear and for this reason is not largely grown for market. All home grounds, however, should contain one or more Seckel. September and October.



Kieffer



Peaches

Our list of peach varieties has been carefully selected from among the best known and most profitable sorts. We keep abreast of the times and offer our customers the best of everything in fruit trees and flowers. Peach trees should be planted from 16 to 20 feet apart every way, no closer, and cultivation is just as important as in the apple orchard. Most of the successful peach orchards in the country have trees 20 feet apart which requires 108 trees to the acre.

Alexander. Medium size, round, red and white skinned, with creamy white flesh. Ripens extremely early, but is not of very good quality. We consider Mayflower, which ripens practically at the same time, its superior, both in a commercial way and for the home orchard. Last of June.

Crawford Early. A large, oblong, red-cheeked, yellow peach, ripening the last of July. A juicy, excellent freestone variety that is planted largely for dessert and market. The tree is wonderfully productive and fairly hardy. A good kind for all peach sections.

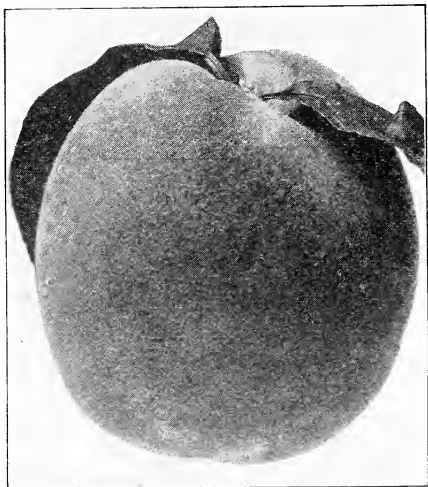
Crawford Late. A yellow-fleshed peach of splendid size, with handsome dull red cheeks; quality excellent. Ripens in mid-September and always brings good prices. The tree is dependable and is reasonably hardy. It is an old favorite and is considered one of the very best of all late peaches.

Kenworthy. Of the thousands of seedlings that come into bearing every year, one is

seldom found that is worthy of propagation, that is, better in some respects than any known variety of its season. We have always been on the lookout for any good sorts, believing it the duty of the nursery-



Kenworthy



Champion

man to preserve a variety that proves to be of value. The history of the Kenworthy peach is just like that of all other new sorts. It is a chance seedling, and if it had not been grown by a careful man, one who took an interest in horticultural matters, doubtless it would have been lost to the peach lovers of the country; but Mr. Kenworthy recognized its value, interested us in its propagation and we are pushing it out to peach growers each year, knowing it to be valuable and that those who plant it will thank us when the tree comes into bearing.

It is a glorious, flashing red-cheeked yellow peach, large in size, with orange-yellow meat that is sweet, juicy and most delicious. It will be a welcome addition to the commercial peach list and the man who grows it in his orchard will find the market eager to take this wonderful peach at extra prices. We believe that the description given us by Mr. J. R. Kenworthy, the originator, of Wichita, Kansas, will be of interest to the readers of this book; hence we give his description in full, word for word, as it came to us. Our experience with the peach has shown us that Mr. Kenworthy's description is conservative and fair:

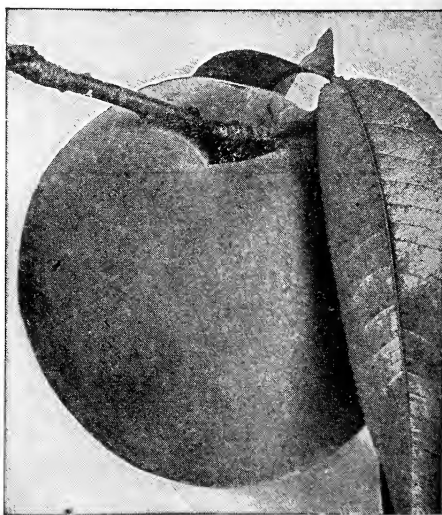
"Some years ago Mrs. J. R. Kenworthy was visiting near Belle Plain, Kansas. As she 'made the rounds' among the homes of her friends, she was given some peaches which were so good that she saved the seeds from them. Later on I planted the seeds. Part of them came up, and the few trees that looked good we set out. Of those that came into leaving, only one fruited that was worth keeping. This tree fruited

first in 1906 and bore 36 peaches. The first one ripened on August 23d and all on the tree obtained about the same size. They measured $11\frac{1}{2}$ inches around the small way, and weighed 14 ounces. The color is a red-dish yellow, dark with light shades, much the color of Elberta. The meat is an orange yellow, very thick, sweet and juicy. We got Mr. W. F. Schell of the Wichita Nurseries to preserve 3 of these peaches (all we could get in a gallon glass jar), and I have them yet, this January, 1914."

We recommend this great yellow sort to peach growers everywhere. It is a splendid sort to plant with Elberta, although it is much better in quality and ripens considerably later, coming on the market when peaches are rather scarce, which is another reason why this great peach should be given consideration by every man who is planting an orchard. We are the sole propagators of Kenworthy peach.

Bokara. An extremely hardy peach that has stood 28 degrees below zero and produced good crops. The fruit is large, yellow with handsome red cheeks, of good quality and a perfect freestone. The skin is tough, the meat is solid, making it a splendid shipper.

Champion. The national favorite white peach. One that has made good money for peach growers every year. Its extreme hardiness insures a crop where others are a failure. It is large in size and splendid in beauty—the tempting pink-red cheek on creamy white ground makes a real peach picture.



Elberta

Crosby. A medium-sized, round, yellow-fleshed peach, blushing red, a perfect freestone with small pit, that is juicy and sweet. It ripens ahead of Crawford Late and is largely planted in some sections for commercial purposes. It is a good peach and can be planted with confidence.

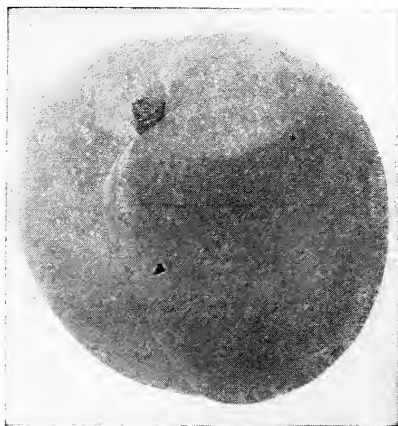
Elberta. Has made more money for the peach growers of America than any other peach, and is the standard market sort in peach regions every year. It is of great size, dull red cheeked on yellow ground, a good shipper and a good keeper.

Heath Cling. Large, white peach, slightly tinged red, that is a standard of quality among cling peaches, the flesh being red and tender, and as luscious as a peach can be. It is a favorite with the housewives of the nation and we recommend its planting, especially for home use. No family orchard is complete without several Heath trees. It ripens about September 15th.

Fitzgerald. An improved Early Crawford, being fully equal to it in size, quality and color. The tree commences bearing young, is productive and one of the hardiest. Fruit large, brilliant color, bright yellow, suffused with red; flesh deep yellow, best quality. Early September.

Mayflower. The early peach par excellence. A most gloriously beautiful and the best in quality of all extremely early sorts. The entire peach is covered with a glowing red and is to our eye the most beautiful peach grown. The quality is excellent and, while it is not a perfect freestone, it clings but slightly to the pit.

Oldmixon. One of the old standard sorts. Strong, upright grower; needing heavy an-



Mayflower

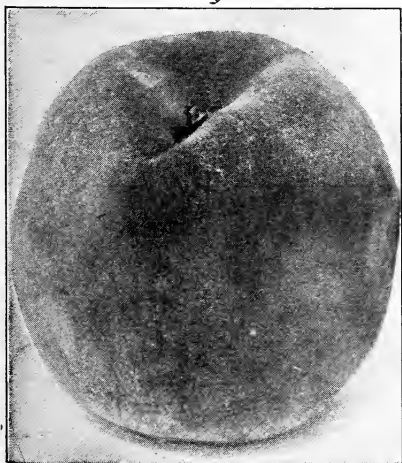
nual shortening. Fruit large, round, somewhat elongated. Flesh firm and of good quality. August.

Japan Blood Dwarf Peach. The great peach for the Southwest. The tree is dwarf in habit of growth, very hardy and vigorous. Buds withstand the cold weather better than any other variety. Fruit deep red in color. Flesh deep red striped with white, very juicy and of good flavor. The juice of this peach is dark red like blackberry juice. Pit very small, about like a plum pit. Size medium, ripens about the middle of July. A very attractive peach and one that the fruit is in great demand. A sure cropper, bears second year from planting. That's an absolute fact. Planters of this variety will surely hear the "Golden echo in their cash box."

Stump the World. A large, round, white-fleshed peach, with a handsome red cheek. It is juicy, sprightly and good, a perfect freestone that ripens about August 15th. It originated in New York and in many parts of the East and is planted largely for market purposes.

Triumph. Earliest of all yellow-fleshed peaches. A semi-cling of only fair quality and, being soft, is not desirable where necessary to ship long distances. It ripens with Alexander, blooms late and is a sure bearer. It is a well-known early sort that is being planted sparingly these days. However, we recommend it for the home orchard. For commercial purposes Mayflower is far superior.

Wonderful. Originated in New Jersey. Very large, yellow with red cheek; flesh yellow, highly flavored and firm; bright red at the pit, which is small and parts freely from the flesh. Good keeper. October.



Triumph

Plums

The plum delights in a cool, not too dry situation, and good, rich soil. Plant in rows north and south, with trees 10 to 15 feet apart, in rows far enough from each other to give good air circulation. The varieties we offer have been thoroughly tested, and are standbys. These may be relied upon to furnish yearly crops of this most highly profitable and exceedingly delicious fruit.

Japan Plums

Red June. Of good size, garnet red, and slightly mottled with thin bloom. Tree is large, vigorous, hardy and productive. Ripens just ahead of Abundance. July and August.

Abundance. The most popular and probably the most widely grown of all the true Japanese sorts. It was imported from Japan by Luther Burbank in 1884, and its wide distribution in this short space of time is remarkable. Fruit is large, bright red, changing to darker red and mottled with thin bloom, flesh is yellow, very juicy, tender and sweet. Tree is large and vigorous and bears good crops. August.

Burbank. Ripens a week later than Abundance. Fruit is large and dark red over a yellow ground, mottled with heavy bloom; tree is large, but of low sprawling growth, and is hardy and productive. This variety is a production of Luther Burbank's and was named for him by the United States Department of Agriculture in 1887. Ranks next to Abundance in popularity.

Satsuma (Blood). A popular Japanese sort, originated with Luther Burbank in 1883, and has become popular in many sections. The tree is vigorous, upright-spread-ing, quite hardy and bears good crops. The

fruit is large, dark, dull red, with thin bloom; dark purplish red flesh that is very juicy and tender with sweet, peculiar flavor. Ripens after Burbank.

Wickson. A well-known Japanese variety from the experimental grounds of Luther Burbank and is probably the best known of his many plums. First described in 1892, and is now widely grown. Fruit is enormous in size, dark red over yellow ground, indistinctly splashed with red and mottled with bloom. Flesh is juicy, firm and sweet, with pleasant flavor. Largely grown for market and for the home orchard and should be planted in every dooryard.

European Varieties

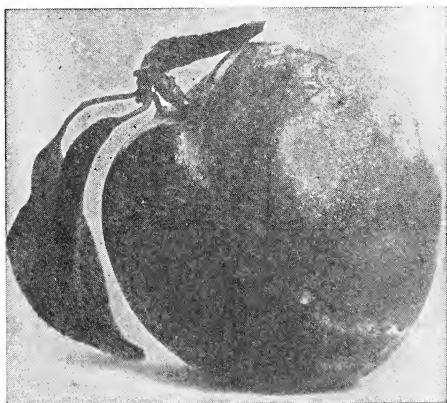
Bradshaw. Purplish-red plum with tender flesh, and pleasant qualities, perhaps the most widely planted of all European plums, with the exception of Lombard, although in the past few years the planting of it has been on the decrease, as Japanese sorts are becoming more and more popular. Middle of August.

German Prune. The most widely planted of all the prunes. Large, long, oval; purple with thick blue bloom. Trees bear enormous crops wherever prunes will grow. September.

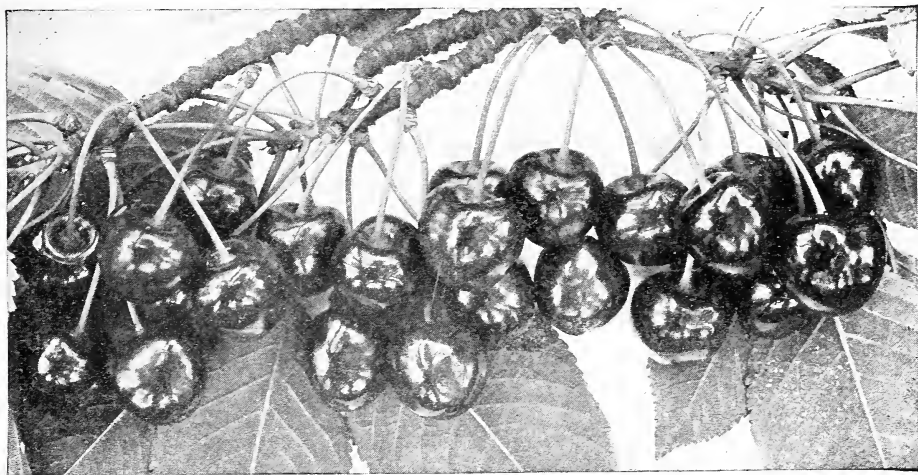
Lombard. Probably most widely known of all plums. Succeeds in nearly all soils and under nearly all conditions. Fruit is of medium size, longish oval, slightly flattened at the ends. Dark purplish red over-spread with thick bloom. Flesh is firm and sweet. August.

Shropshire Damson. The best of all the Damsons. Flesh is amber colored, juicy and sprightly, and of fine quality. Tree is very productive and the variety is grown largely for market and for home use. Should be in every home orchard and in every fruit garden. September.

Gold. One of the best and handsomest of all yellow plums, though of only fair quality. The tree is very satisfactory and can be depended upon for good crops. Grow them for nearly markets. August.



Burbank



Black Tartarian

Cherry

Cherry trees are now generally propagated by budding on Mahaleb stocks, since they do not sprout from the roots. They should be planted deep enough to place the point of union from four to six inches below the surface.

Let Early Richmond and Montmorency make up a large part of your cherry orchard if you want to be entirely happy. Other varieties are gradually dying out, so that in time Early Richmond and Montmorency with some English Morello for late market, will constitute the varieties in the orchard.

These two sorts successfully resist the ailments caused by floods of rain. Professor Webster of Ohio reported that these two have so far been able to resist the attacks of the San Jose scale.

Heart and Bigarreau Varieties (Sweet)

Black Tartarian. Large, bright, glossy black cherry that is one of the most popular sweet sorts. Flesh is juicy, rich and fine. Tree grows rapidly and bears young and large crops. First in July.

Governor Wood. Large, bright yellow cherry, blushed with bright red; juicy, rich flesh, very sweet. Tree is thoroughly dependable wherever sweet cherries will grow. Last of June.

Windsor. Large, dull red, almost liver colored. Flesh is remarkably firm and sweet, and is of fine quality. One of the hardiest of all the sweet cherries, largely

planted in the Central West and in the East. Last of June.

Morello Cherries (Sour)

Dyehouse. This and Early Richmond are the two best early sour cherries. Dyehouse has a smaller seed than Early Richmond and ripens about a week earlier and is a little better in quality. Tree is strong grower and bears tremendous crops. May and June.

English Morello. The tree is a young and hardy bearer. Ripens after Montmorency and is being planted by commercial cherry growers in order to lengthen the selling season. It is a dark red, juicy and pleasantly sub-acid when fully ripe. July.

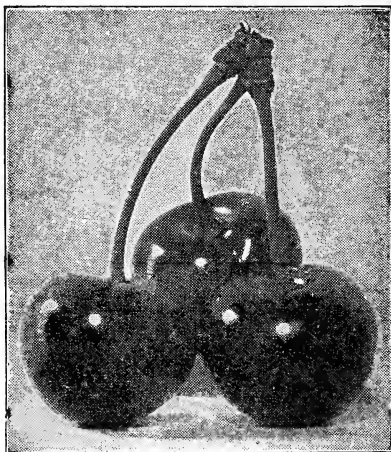
Large Montmorency. This is the best strain of the Montmorency which is recognized by everyone as the best of all the sour cherries and is more largely planted than any of the others. Fruit is large and bright red, resembles Early Richmond, but larger and more solid, hence is a better shipper. The tree is thoroughly hardy and produces tremendous crops. Ripens about ten days later than Early Richmond and is fast becoming the sour cherry of commerce.

There is not a fault in either tree or fruit that we have ever been able to find.

Wragg. Of the English Morello type and very similar, yet many orchardists consider it superior. It is being planted largely, especially in Colorado, where great orchards of them are being grown. Originated in Iowa and is also being widely planted throughout the North. Fruit is medium to large in size, dark red when fully ripe, long stem and is a good shipper. No late cherry is more valuable.

Early Richmond. Without doubt the most widely planted early cherry; tree is strong and thrifty and grows very large. Fruit is medium size, dark red and is popular with housewives everywhere. Its sprightly acidity makes it ideal for cooking. Last of May and first of June.

Compass. Originated in Minnesota. Is a cross between the Morello cherry and Miner plum. Remarkably hardy and is planted extensively in Minnesota and the Dakotas, where encouraging reports have been made as to hardiness and fruitfulness. Its early bearing is wonderful.



Compass

Apricots

If your apricots are attacked by curculio, apply the same treatment, as given for domestic plums. Budded on our native plum seedling stocks, they are especially hardy and desirable.

Early Golden. Small, round, pale orange; flesh juicy, sweet, parting readily from the pit. Tree is hardy and productive and ripens first of July.

Royal. Extremely hardy sort, that originated in New York. It is of large size, bright yellow, with red cheek and is juicy and good. Ripens middle of July to the first of August. Well known sort.

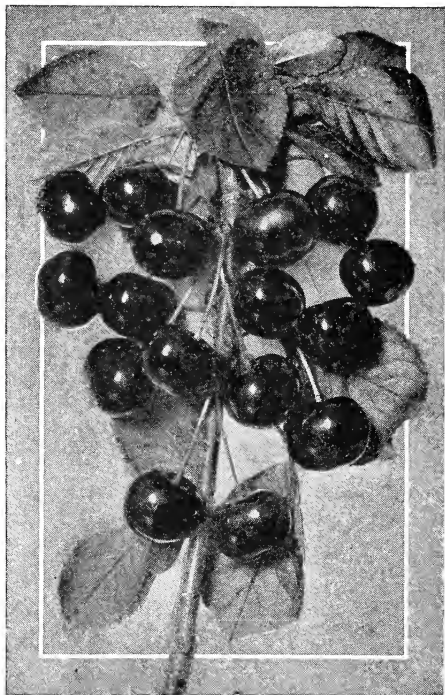
Moorpark. One of the largest and finest apricots. Orange yellow with red cheek, sweet, rich flesh, plenty of juice. In all apricot regions Moorpark is planted by the thousands. Probably the most popular known sort. We offer a good stock of this variety.

Quinces

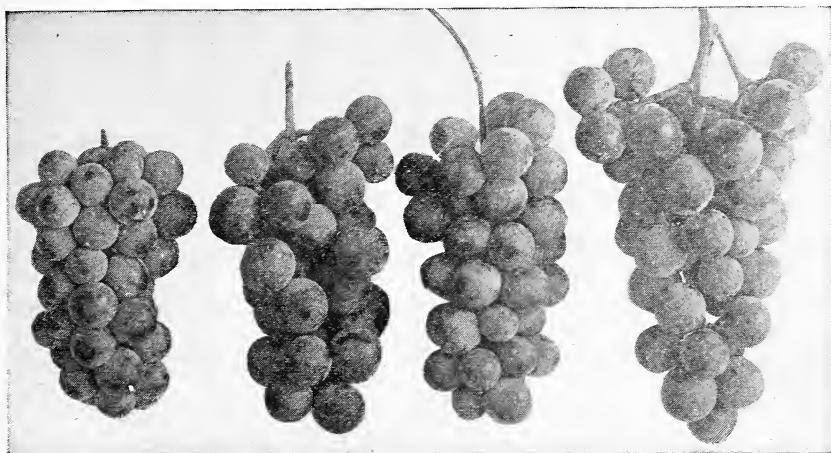
One of the most profitable and attractive market fruits. In places where the right conditions of soil and climate are met, it succeeds well. It wants mellow, well-enriched soil and plenty of moisture.

Champion. Fruit large, fair and handsome. Tree bears abundantly while young. Flesh cooks as tender as an apple and without hard spots or cores; flavor delicate. The most valuable of all.

Orange. Large, roundish, yellow, cooks tender and is of excellent flavor. Valuable for preserves and flavoring. Productive. September.



Early Richmond



Campbell's Early

Concord

Niagara

Worden

Grapes

Grape vines occupy but little room, and nothing that can be grown will bring greater returns or more pleasure. Every home should plant a dozen or more grape vines. That is all that is necessary to give the necessary fruit for the family. Select your varieties carefully; plant black, red and white sorts; also early and late varieties. All sorts we describe are good ones, and can be planted with confidence. They can be trained up the side of any building or a garden fence, but the best and most profitable way is on a wire trellis which can be built in a very short time, and at a small outlay.

Agawam. Probably the most largely grown of all Rogers Hybrids. Fruit ripens soon after Concord; keeps well. Bunches are large and berries are dark, dull purplish red, somewhat resembling Catawba. Vine is vigorous, hardy and productive. We recommend it.

Brighton. Large shouldered bunch; berries medium to large, dark red, tender, sweet, juicy, slightly aromatic, very good in quality. Ripens early and is a standard red market grape.

Campbell's Early. Early black grape of the Concord type, that ripens slightly earlier and is larger than Moore's Early. The bunches are large, usually shouldered, compact and one of the handsomest black grapes. Vine seems to have all the vigor of its parent, Concord, and it bears tremendous crops; it is extremely hardy and is fast becoming one of the great commercial black grapes in all sections.

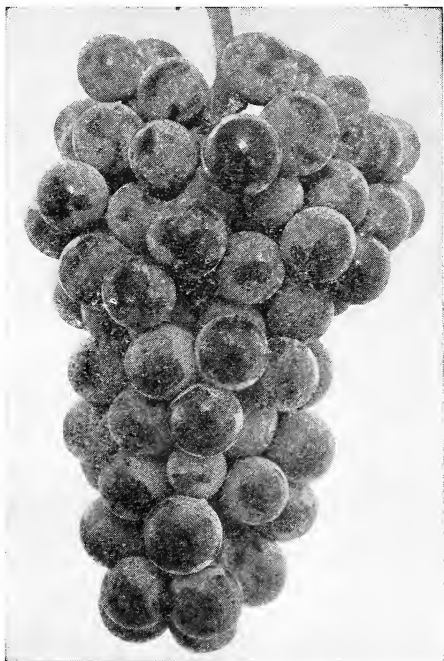
Concord. Great commercial king of all black grapes, grown by the thousands of acres, and always a money-maker. Ephrium Bull, who gave Concord to the world, also brought wealth and happiness to millions. Since its introduction there has come from

it a family of hardy grapes that has made grape growing what it is today. Moore's Early, Campbell's Early, Worden, Moore's Diamond, Hicks, King and numbers of others, are seedlings of this great old variety.

Delaware. Red grape of highest quality; delicate flavor and pleasing aroma. Bunches are small, compact and sometimes shouldered. Berries are small, with thin, firm skin; flesh juicy, sweet and the standard of excellence among red grapes.

McPike. This grand new variety was originated in south Illinois. The McPike is a seedling of the Worden and partakes of all the good qualities of the Concord and Worden to a marked degree. Perfectly hardy, as easily grown as Concord or Worden.

Moore's Diamond. Hardest and best of all white grapes. It is a seedling of Concord and has all of its parent's good vine characteristics. Clusters rather broad and blunt, often shouldered and compact. Flesh pale green, juicy and tender, slightly aromatic, sweet next to skin and is extra good in quality. Ripens just ahead of Moore's Early.



Moore's Early

Niagara. Probably a better known white grape than Diamond, but, everything considered, we do not believe it to be as valuable. This variety also has Concord blood in it. Was grown from a seed of Concord, fertilized by Cassidy. Was introduced about 1882 and has been popular ever since its introduction. Both bunches and berries are large, greenish white, changing to pale yellow when fully ripe. Skin is thin, but tough. Quality good.

Worden. Another seedling of Concord, which it greatly resembles, both in appearance and flavor, but the berries are larger. In the past few years the planting of the Worden has trebled, and it is fast taking its place as a standard market grape along with Concord and Moore's Early. It possesses most of the good qualities of Concord, and is better in some ways.

Moore's Early. Ripens a week earlier than Concord. The most popular and widely grown of all black grapes with the exception of Concord. Vine is a good grower and yields heavily. Bunch is large, shouldered, compact. Berry large. This great black grape has made a great record in the black seedlings of Concord fall, and surpasses all of these in quality.

Small Fruits

Too few gardens and home grounds contain small fruit plants sufficient to grow fruit for the family. Raspberries, blackberries, dewberries, currants, gooseberries, strawberries, etc., should be grown in abundance, for they cost but little and invariably bring good returns. Should your small fruit patch produce more than you need, you can always sell your over-supply at good prices.

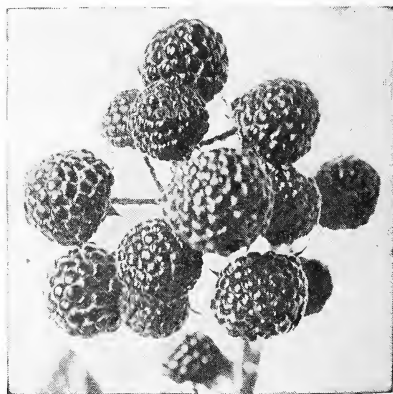
Raspberry

The great improvement in the hardy varieties makes the cultivation of this fine fruit comparatively easy; any good soil will do, but a light, loamy one is preferable. Plant in rows of five or six feet apart, leaving four feet between the plants; remove the old canes as soon as the fruit is gone, and do not allow more than three or four new ones to each hill; pinch the young canes when three or four feet high, and continue pinching in the laterals when a few inches long. Treated in this way they will need no stakes, but will be stout enough to support themselves.

Red Raspberry

Cardinal. A handsome reddish-purple berry that is a hybrid of the red and black. Is strong growing, hardy, berries are firm

and of excellent quality. This variety is a good one and should be on every plantation.



Cardinal

Cuthbert. One of the best known of the red raspberries. It is of a high quality and a good shipper. Vine is strong, hardy and extremely productive and is largely planted commercially. We recommend it.

Loudon. Excellent dark red berry, very large, excellent quality. Plant wonderfully hardy and productive. Stands shipping better than most red sorts. A good sort to plant with Cuthbert. Remains on the bushes longest without injury.

St. Regis. Plants of St. Regis, planted in early April, gave ripe berries on the 20th of June of the same year. For four weeks thereafter the yield was heavy and the canes continued to produce ripe fruit freely without intermission until the middle of October. The berries were large and beautiful, firm and full flavored, to the very last. St. Regis is the only raspberry thus far known, that will yield a crop of fruit the season planted.

Loganberry

Hybrid between a blackberry and raspberry, produced in California. Fruit as large as a blackberry, but of deep red color. Of questionable hardiness and utility. Excellent as a novelty.

Black Raspberry

Cumberland. (The Business Black-Cap.) The largest of all the black raspberries and the vine will bear more gallons of fruit than any fruit we know. This great berry has every good point and stands in a class by itself among black raspberries. Hardy and thoroughly dependable and should be planted wherever black raspberry is wanted.

Greeg. Extra large, late blue-black berry and, while the vine is dependable and fruit is good, we do not consider it the equal of Cumberland. Berries are firm and ship well. They ripen late and this, with its good quality, insures its continued planting.

Kansas. A sort named for its native state, originating in Lawrence. Vine is hardy, a vigorous grower and a good seller. It is recommended by many growers and nurserymen but, everything considered, Cumberland is its superior. More raspberries should be planted. The markets are ready for them at good prices, and it is surprising what returns can be secured from one acre planted to the right sorts and properly cared for.



Snyder

Blackberries

Any moderately rich soil will answer for their cultivation, but to avoid a too strong growth and straggling habit the ends of the shoots must be occasionally pinched during the growing season, thereby encouraging the plants to form dwarf bushes, making it easier to work among them and at the same time causing the plants to produce a larger crop and finer berries. An annual dressing with manure will produce an excellent effect on the succeeding crop of fruit.

Mersereau. Fast becoming one of the most popular of all blackberries. Vine is exceedingly hardy and of great productiveness, while the berries are of immense size, jet black and rich, while its luscious quality makes it favorite in the home as well as a king on the market. It keeps well and can be shipped long distances. We recommend it as the best grown.

Rathbun. A good sort, one that is gaining in favor. Berry is large, jet-black and of fine quality. Hardly as hardy as Mersereau or Snyder, but for Central and Southern territory, nothing is finer. Ripens early and has been tested in all sections.

Snyder. An old favorite, ripening in mid-season; berries are medium size, sweet and fine flavor. Extremely hardy, hence is popular in the North. You can always depend upon Snyder for good crops and for good profits.

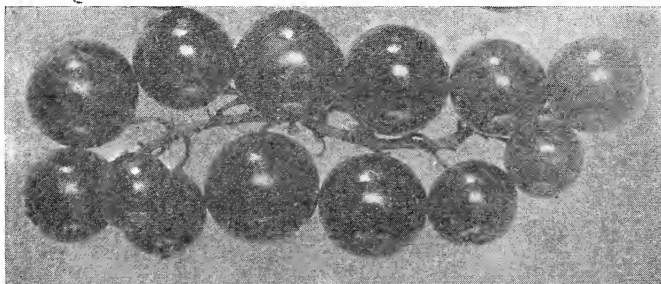
Early Harvest. Probably the best known of all blackberries. Ripens extremely early, but in a cold climate requires winter protection. No sort will bear more gallons of fruit, year in and year out, than Early Harvest. Of medium size and of good quality. The standard early blackberry.

Dewberry

Lucretia. The best known and most popular of all varieties of dewberry. Fruit is very large, handsome and luscious. Is hardy and a strong grower, and enormously productive. Dewberries always bring good prices and there are not half enough produced to supply the demand. We urge the planting of more dewberries. Plant Lucretia by the thousands for big profits. Vines

should be allowed to remain on the ground during the winter and staked up early in the spring.

Dwarf Juneberry. Fruit borne in clusters. Reddish purple, changing to bluish black. Excellent for canning. The fruit is eagerly devoured by birds, which leave the finest fruit untouched where this is plentiful.



Fay's Prolific

Currants

Plant your currant bushes about 4 feet apart in the garden. In planting, select the shadiest spot you can find, and the deeper the shade, the better success you will have with currants. However, it flourishes in almost any kind of soil, and under almost any conditions, but, of course, rich deep soil is best, and they require annual pruning and cultivation. When plants are grown as bushes the older and feebler suckers should be cut out. When grown in the form of a tree with a single stem, bearing wood should be thinned and stems and roots kept free of suckers.

Cherry. We grow cherry in preference to Red Dutch, and consider it superior in every respect. The berries are very large, often more than one-half inch in diameter. Plant is very vigorous, produces good crops, when in good soil and well cultivated. Vine growth is tall and luxuriant and, all in all, both vine and fruit are most satisfactory.

Fay's Prolific. Berry fully equal to Cherry in size, while the flavor is superior. Probably the most popular red currant. Bunch is long and full, with a long stem which facilitates gathering. Berries are dark red, mildly flavored, and ripen in mid-season. Largely grown for market.

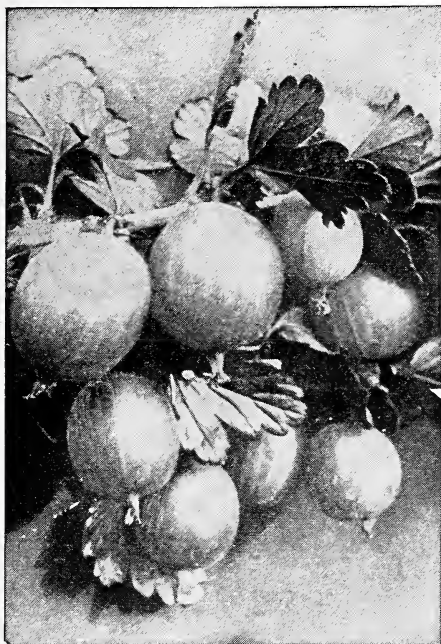
Perfection. In color, it is a beautiful bright red, and of size larger than the Fay; the clusters average longer and the size of the berries is maintained to the end of the bunch. It is one of the most productive currants we have ever known, and in quality it is superior to anything in the market, being of a rich, mild, sub-acid flavor and having plenty of pulp with few seeds.

White Grape. Very large, yellowish white, sweet or very mild acid; excellent for the table. The finest of the white sorts; very productive. The markets are always ready for currants, and prices are always good. None of us has ever known of an over-supply of currants.

Gooseberries

The gooseberry delights in deep, exceedingly rich soil, as recommended for currants, and thorough mulching. Gooseberries have never received the attention they deserve. The markets are scarcely ever fully supplied. Each year the demand is greater and no one will make a mistake in planting quite liberally of this most healthful, invigorating fruit.

Downing. Fruit is of immense size, pale green and of good quality. Bush is upright



Downing

growing, vigorous and productive. Planting of Downing is on the increase.

Houghton. The old favorite, well known and liked. Berries pale red, sweet, juicy and good, and rather small, yet the bush bears tremendous crops and is one of the healthiest and most dependable of them all. Houghton has been a favorite with gooseberry growers for years, and more of them are found on the markets than of any other sort.

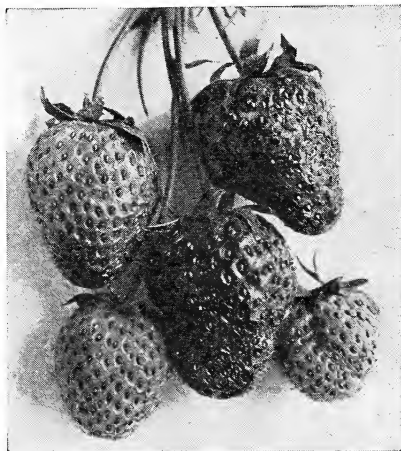
Josselyn. One of the largest of the American sorts. Vine is of strong growth, hardy and produces wonderful crops. Originated in New York, and has been tested over a wide territory, and its freedom from mildew makes it one of the most popular. It can always be depended upon for big crops, and it is being planted widely as the excellent qualities of both plant and berry are becoming known.

Pearl. A cross between Houghton and one of the large English varieties. It is very hardy and almost free from mildew. Resembles Downing very closely, but in many sections it is proving superior to its parent, being more productive and will probably supersede this old standard sort.

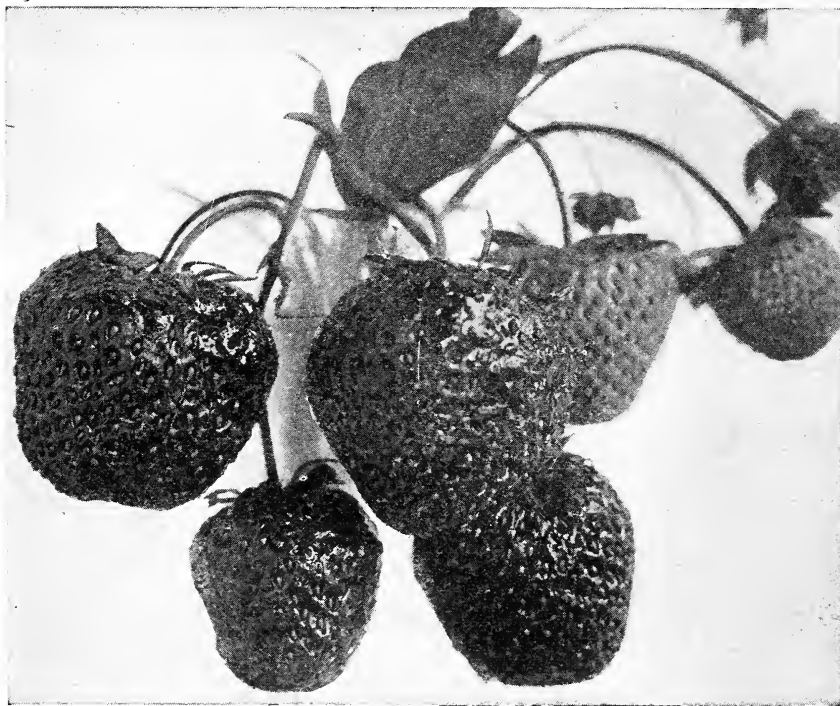
Strawberries

Strawberries will succeed in any soil that is adapted to any ordinary farm or garden crops. Soil should be thoroughly prepared to a good depth, well drained and enriched. For field culture set in rows three and one-half feet apart, fifteen to eighteen inches in rows; for garden, fifteen to eighteen inches each way, leaving pathway every third row. Ground should always be kept clean and well cultivated. In winter a covering of leaves, straw or some kind of litter will protect the plants. Do not cover them until ground is frozen or so deep as to smother the plants, and remove covering before the growth starts in the spring. When the berries are set, discontinue cultivation and mulch lightly, which will keep the fruit clean and the soil in good condition during the fruiting season. The blossoms of all varieties marked "S" are bi-sexual or perfect; those marked "P" are destitute of stamens and are termed pistillate or imperfect. Imperfect varieties should have a row of perfect flowered sorts planted every third or fourth row to pollenize their blossoms. When imperfect blossoms are properly fertilized they are most productive.

Bederwood (S). One of the best standard early varieties for market. The plant is small, but very vigorous in growth and yields heavy crops through a long period, the berry being round and sweet. A good



Bederwood



Progressive Everbearers (See Page 21)

sort for any location. A very strong staminate, the very best fertilizer for Warfield, Crescent and Haverland.

Brandywine (S). A fine, large late, handsome, productive berry of excellent quality; regular conical form; dark, glossy red, extending to the center. Plant healthy and vigorous, abundant producer. An extra good sort for all purposes.

Clyde (S). A healthy, vigorous grower and very productive. Fruit large, bright red; good quality. As far as tested is giving the best of satisfaction.

Crescent (P). A very productive berry, bearing profusely, even under neglect. The berries are of medium size, rather tart. One of the very best for preserving. Fruit colors on all sizes at once; a great cropper; early.

Haverland (P). Profitable by reason of its productiveness and earliness; requires deep, heavy soil; plant exceedingly vigorous and healthy; fruit large, handsome and good; rather long in shape and of a bright, glossy crimson; early.

Klondike (S). This variety is noted for its large yields of beautiful berries, uniform in

shape, rich blood-red in color, and having a flavor that is neither sweet nor sour, but mildly delicious; the berry is full of juice. It is an excellent shipper and a universal favorite of the commercial sorts.

Aroma (P). One of the best late sorts. Fruit is large, handsome, firm, of fine quality and invariably smooth and free from defects. One of the very best berries for home use, for market and for shipping.

Gandy (S). Perfect blossom, very productive, extremely vigorous, very large and attractive; one of the firmest, latest, best keepers, of finest flavor; sells at high prices. Berries very large, regular in shape, dark colored. One of the very best late market varieties, and well known everywhere.

Snator Dunlap (S). This berry is of the Warfield type, has a perfect blossom, is hardy, productive, a splendid keeper and able to hold its own under any "rough and tumble" methods of culture to which it is likely to be subjected. It is a very heavy bearer, of good size, even fruit, of a very beautiful, dark red color. It is a berry to grow for either home use or market.

Warfield

Warfield (P). Perhaps the most universal favorite of all. It has good color, hardiness, productiveness and quality combined. The berries are uniform in size, very dark, waxy red, firm and beautiful; the plant is a clean, healthy, vigorous grower, sending out numerous runners, and making a thick, matted row. Can be grown on bottom land, hillside or hilltop, on rich soil or poor soil. Plant a part of your patch to Warfield.

A New Race

A new variety is the "**Superb**" **Everbearing Strawberry**. It is the top variety of the new race of strawberries known as Everbearers. The "Superb" is bound to revolutionize the strawberry business. Imagine a berry having the quality of the Sample, the size of the Brandywine, the firm texture of the Dunlap (making it a grand shipper), the heavy yielding quality of the Aroma—then imagine a strawberry having all of these points of excellence, and, in addition, the habit of fruiting from August until snow covers the ground, and you then have a good idea of the "Superb" **Everbearer**. "**Progressive**," another good variety of the same type.

Superb

King of All Everbearers

SUPERB sells at higher prices than any other berry offered on the markets of Chicago, New York, St. Louis, and Kansas City. Kansas City paid 35 cents per quart for them.

Eastern cities pay 40 cents to 45 cents per quart.

SUPERB is a heavy bearer, splendid keeper, excellent shipper, a beautiful colored, finely flavored berry. Bears from June until frost.

See Price List for Prices

WICHITA NURSERIES, Wichita, Kan.

Rhubarb

This deserves to be ranked among the best early fruits in the garden. It affords the earliest material for pies and tarts, continues long in use, is valuable for canning. Use well-grown roots, not divided old clumps.

Linnaeus. Without doubt the best variety in cultivation. Stock long and heavy, without being stringy or tough.

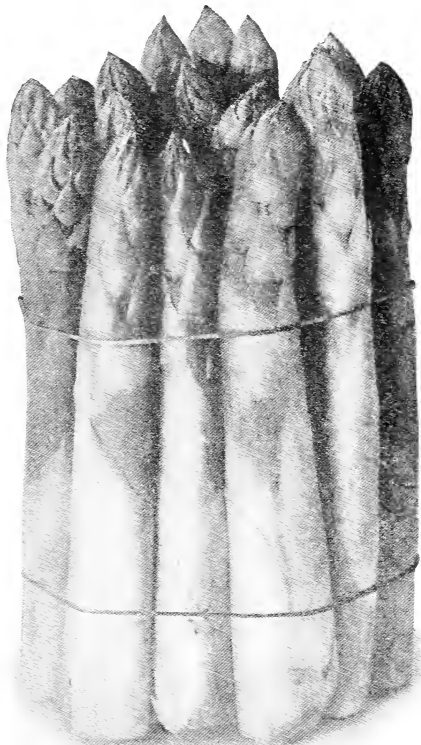
Mammoth. A great market sort, being largely planted because of its giant growth.

Asparagus

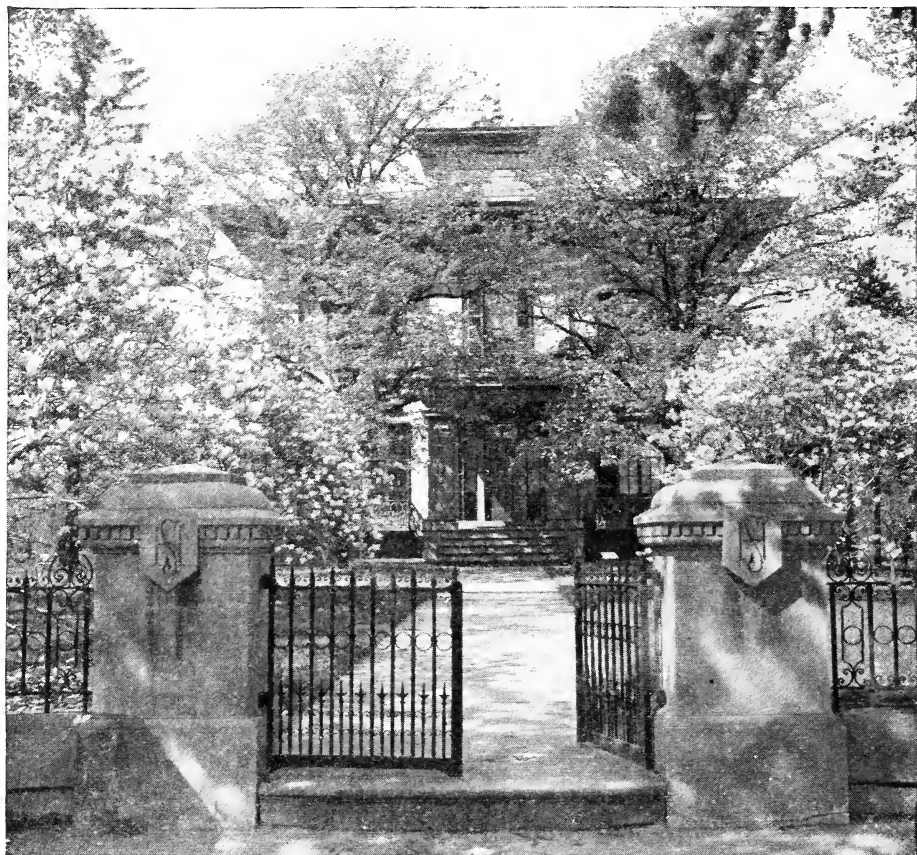
The first garden vegetable of spring; it is a great delicacy and comes in just when it is most needed. One hundred roots will supply a small family and will last for years. Set the plants about eighteen inches apart in the row. Spread the roots out in the bottom of the hole or furrow and gradually fill in as the plant grows, so that the roots will be about four inches deep.

Conover's Colossal. The best for general planting, remarkably tender and high flavored. Superior in size and quality.

Palmetto. A very early variety of excellent quality. Even and regular in size, and is now being generally planted.



Conover's Colossal Asparagus



Ornamental Department

Roses

Hybrid Perpetuals

Coquette des Alps. One of the finest pure white hybrid perpetuals; large, full, finely formed flower; pure white, sometimes faintly tinged with pale blush; profuse bloomer.

General Jacqueminot. Probably more universally planted than any other rose. Its large, flashing scarlet flower has been a favorite in garden and on the lawn for years and it is still one of the most popular. It is hardy, strong growing and produces profusely of perfect blossoms.

John Hopper. Large, perfectly double, clear, rosy pink flowers; hardy, abundant bloomer and one of the first to open.

Madam Charles Wood. Flowers large; dazzling crimson; a constant bloomer; very fine.

Mrs. John Laing. A rose of beautiful form; soft pink and with splendid fragrance. It is remarkably free flowering and vigorous and hardy.

Kaiserin Augusta Victoria. A beautiful rose, with elegant, large pointed buds and very large, full double flowers.

Killarney. Bright carmine-pink, marbled in creamy white, with petals large and durable, the buds extremely long.

Jonkheer J. L. Mock. A new pink rose from Holland. Flowers are round and full,

bright pink faced carmine. A splendid bedder. One of the finest roses.

Gruss an Teplitz. Intense depth and richness of color; velvety crimson-red; very fine.

Blumenschmidt. Pure citron yellow, edged tender rose on outer petals. Best yellow Tea rose.

Soleil d'Or. Beautiful reddish gold color, very fragrant. A grand rose, something different from any other rose.

Baby Rambler Tree Rose. A most attractive novelty in hardy roses. The most florescent of all tree roses.

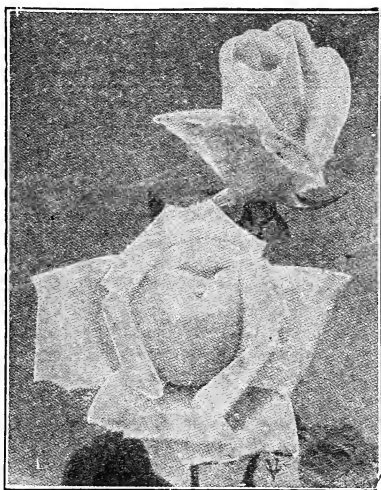
Paul Neyron. The most gorgeous, glorious, hardy rose. In size it is immense, often measuring five inches in diameter, its stems two to three feet long. It has been appropriately called "The Hardy American Beauty." It is by far the largest rose in cultivation and its wonderful beauty must be seen to be appreciated. It is a bright, clear pink, well formed and the bush is hardy, of strong growth and will bear anywhere and under most any conditions.

Prince Camille de Rohan. Very dark, rich, velvety crimson, passing to intense maroon, shaded black; large, full flowers. One of the darkest roses and very handsome.

Frau Karl Druschki. The regal "White American Beauty." The distinctive form and expression of its bud, half opened state and maturity are a three-fold revelation of exquisite charm and beauty.

Climbing Roses

Climbing American Beauty. A new and wonderfully beautiful rose. The American Beauty in all its glory and fragrance, but



Frau Karl Druschki



Soleil d'Or

hardy as an oak, a prolific bloomer and a strong grower, thriving and blooming in almost any situation. The roses grow on single stems, measure three to four inches in diameter, and have the same exquisite fragrance as the old American Beauty, thus making the climbing beauty a high-class rose.

Flower of Fairfield. A sport from the notable Crimson Rambler, which it resembles in every respect, except that it continues to bloom all summer, producing a marvelous succession of brilliant crimson clusters from early spring till late autumn.

Queen of the Prairie. Bright, rosy red, becoming a little lighter as the flower opens. Of good size and borne in clusters. A strong and vigorous hardy climbing rose that has long been a favorite.

Crimson Rambler. During July and August it is in its glory, and is a solid mass of flashing crimson and is the most universally admired of all the climbing roses throughout the land. You will find them covering porches, trellises and making unsightly objects a bower of beauty. It is rugged and hardy and will grow anywhere, despite neglect, producing its great wealth of showy flowers.

Dorothy Perkins. This is a splendid new, shell-pink climbing rose. This new rose is of the same strong habit of growth as the Crimson Rambler, and the flowers are borne in clusters of thirty and forty and sometimes even fifty to sixty.

Pink Rambler. A lovely climbing rose. Flowers light, delicate pink or blush and about as large as a 25-cent piece. Blooms middle of June in immense clusters.

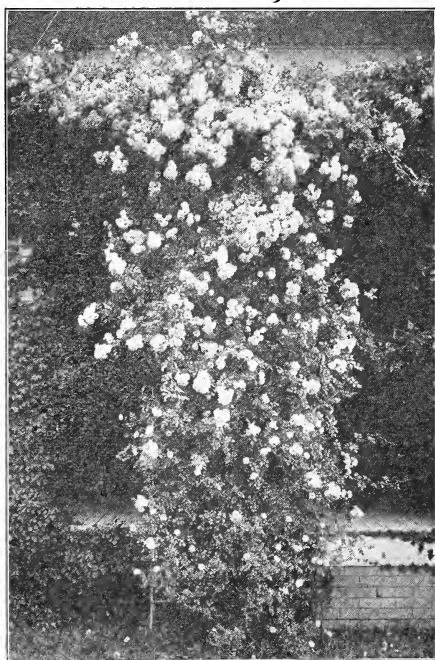
Yellow Rambler. Bud beautiful bright yellow, opening straw color, fading to a beautiful creamy white. Blooms middle of June. Not so desirable as the crimson.

White Rambler. Pure snowy white, flowers are double. Blooms middle of June. Not very satisfactory.

Miscellaneous Hardy Roses

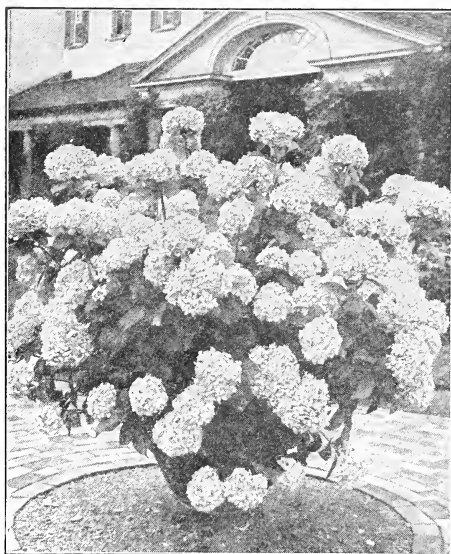
Baby Rambler. This great novelty originated at Orleans, France, and is a hybrid produced by the crossing of Crimson Rambler and Gloire des Polyanthus. It preserves the prolific flowering quality of the latter, but has the color of the Crimson Rambler (clear, brilliant, ruby rose).

Madam Plantier. Flowers pure white, of medium size; full; somewhat rosy in the bud form, produced in greatest abundance quite early in the season. The leaves are small; the bush hardy and spreading. Fine for masses, hedges, borders, cemeteries, etc.



Climbing American Beauty

Flowering Shrubs



Hydrangea

Variegated or Colored Foliage. Barberry, Golden Elder, Syringa Variegated, Weigela.

Shrubs that Flower in May. Flowering Almonds, Honeysuckle, Japan Quince, Lilac, Snowballs, Spireas, Wistaria.

In June. Clematis, Deutzia, Elder, Honeysuckle, Peonies, Lilacs, Snowball, Spireas, Syringa, Weigela, Wistaria.

In July. Clematis, Spirea, Honeysuckle.

In August and September. Bignonia, Clematis, Honeysuckle, Hydrangea.

Althea or Rose of Sharon. Valuable because they bloom so profusely in late summer, when other flowers are scarce. They form beautiful groups or hedges, their variety of colors making it possible to use quantities of them, even in small grounds.

Almond, Flowering. Pink and white varieties that flower freely in May, before the leaves appear, almost covering the slender branches with their fragrant handsome miniature roses. Perfectly hardy.

Calycanthus (Carolina Allspice). Was popular in our grandmother's garden and is still popular and planted largely. Its fragrance is especially pleasing and its double purple flowers are very handsome.

Deutzia. Very desirable shrub, of strong, hardy growth, bearing an abundance of beautiful racemes of double, pure white flowers.

Golden Elder. The leaves are bright and constant golden color; the flowers cluster pure white. Valuable for contrasts and for massing.

Honeysuckle, Upright. White and pink flowers, which contrast beautifully with the foliage. Blossoms in June.

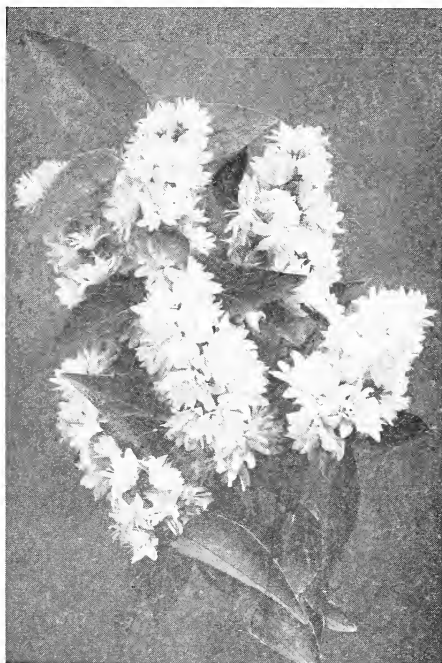
Hydrangea Paniculata Grandiflora. The absolutely hardy hydrangea that will grow in any soil and under most any conditions. Blooms profusely from July to September, bearing hundreds of immense panicles of white blooms. One of the most striking and beautiful shrubs of its season. Often known or called "Hills of Snow." Its great banks of snow-white flowers suggest the name. One of the most popular shrubs in cultivation. No lawn is complete without it.

Tree Lilacs. We offer a splendid lot of **Tree-Shaped Lilacs**; that is, plants grown on a single stem, about three feet high, with shapely, bushy crowns. These will be found very desirable as specimens in the border or on the lawn. The improvement in the Lilac in the last ten years is marvelous and all lovers of this flower will be delighted with these novelties. In size, form and color, they far surpass the old favorites and we confidently recommend them to our patrons. Nothing that has been introduced recently is likely to prove so popular as these Tree Lilacs.

Lilac (Common White). The White Lilac is of the old-time garden, but is still largely grown and popular.

Lilac (Persian Purple). Of more slender growth and finer foliage than the common lilac. Flowers purple in large, loose panicles.

Snowball. A well-known bush that attains large size the latter part of May. Almost completely covered with great white blossoms that make the bush appear a solid snowbank. This is a shrub of the old-time garden, that has retained its popularity. No handsomer lawn ornament.



Lilac

Spirea, Aurea. Golden leaved spirea that makes a splendid showing with its splendid white blossoms. Largely used for landscape work, where a contrast in color is required.

Spirea Billardi. Blossoms are beautiful rose-colored spikes. During July and August.

Spirea Van Houttei. Considered the finest shrub grown, can be planted in clumps, single specimens or for hedges. Its graceful drooping sprays of blossoms have given it the appropriate name of "Bridal Wreath," and it is thus known. It is perfectly hardy and requires little care. Even when it is not in blossom its dark green foliage is handsome, making it an ideal, ever-popular shrub.

Syringa (Mock Orange). A well-known old shrub of vigorous habit, producing white orange-like flowers in great profusion. Blooms the last of May and first of June. Largely planted.

Weigela, Rosea. Hardy with profuse, rosy, trumpet-shaped flowers in May. The most superb shrub of the season.



Ampelopsis

Hardy Climbing Vines

Ampelopsis (Veitchii or Boston Ivy). Not as hardy as American Ivy. Leaves a little smaller than the American Ivy, over-lapping each other and forming a dense sheet of green, clinging tightly to the walls, and with a little winter protection the first winter, until it is established, it is an ideal climber.

Bignonia, Radicans (Scarlet Trumpet Flower). Produces large clusters of trumpet-shaped scarlet flowers in August. Splendid climber, vigorous, hardy, easy to grow and widely distributed.

Clematis. The different varieties and species of Clematis now in cultivation are of the highest beauty and utility. They vary greatly in their foliage and flowers and are adapted to various uses.

C. Jackmanni. A very profuse blooming variety of flowers from 4 to 6 inches in diameter, of an intense violet-purple color, borne successively in continuous masses on the summer shoots. The very best for general planting.

C. Henryi. Fine bloomer; flowers large, of beautiful creamy white, consisting gen-

erally of from 6 to 8 sepals. June to October.

C. Madame Edouard Andre. Flowers large, of beautiful bright velvety red, very free-flowering and continuous bloomer.

C. Paniculata. A great novelty. One of the most desirable, useful and beautiful of hardy garden vines. A luxuriant grower, profuse bloomer, with fine foliage. Flowers of medium size, very pretty and fragrant, produced in greatest profusion in late summer.

Honeysuckle (Monthly Fragrant). Blooms all summer; very sweet.

Honeysuckle (Hall's Japan). A strong, vigorous, evergreen variety with pure white flowers, changing to yellow. Very fragrant; covered with flowers from June to November.

Wistaria. A most beautiful climber of rapid growth, producing long, pendulous clusters of pale blue flowers. When well established makes an enormous growth. It is very hardy and one of the most superb vines ever produced.

Hardy Herbaceous Perennials

Dahlias. Well-known autumn flowering plants, growing from 2 to 5 feet high, and producing a profusion of flowers of the most perfect and beautiful form, varying in color from the purest white to the darkest maroon.

Gladiolus. Of all our summer flowering bulbs gladiolus stands at the head of the most varied and beautiful classes. The flowers are produced in spikes two feet in height and upward. The brilliant scarlet and crimson of some form a striking contrast with the delicate shades and pencillings of the lighter colored varieties. By planting at intervals from May 1st to middle of June a succession of flowers can be had from July to October.

Golden Glow. We call attention to this notable novelty and offer it as the finest herbaceous border plant introduced for many years. It is of easy growth and is giving complete satisfaction. But few plants can vie with it in attractiveness. There is no floral novelty before the public to be compared to it for effectiveness and worth.

Paeonies. Herbaceous Paeonies are among the showiest and most useful of the hardy plants, and are fast becoming popular with the public. They are all hardy and admirably adapted to the climate of our most Northern states, growing well in almost any

location or soil, although the flowers will be finer and the colors brighter, if planted in a deep, rich loam, well manured. The flowers are in all shades, from red and lilac to white, with blooms from 4 to 8 inches in diameter. Many of them are very double and have a delicate and refreshing fragrance.

Flowering Bulbs to Be Planted In the Fall

Crocus. In various colors, single and double. Hyacinths. Among the bulbs used for winter flowers Hyacinth stands foremost on the list. Two methods are employed in flowering the hyacinth in winter, one in glasses filled with water, the other in pots or boxes of soil.

Jonquils. Pretty varieties of the Narcissus, have a very agreeable fragrance; are adapted to either pots or outdoor culture. The bulbs being small, six or eight may be put in a six-inch pot.

Lilies. The lilies are entirely hardy, with few exceptions. Quite fragrant and most of the varieties are very beautiful.

Lilium Auratum. Gold banded lily of Japan.

L. Candidum. Common white.

L. Harrisii (Bermuda Easter Lily). Pure white trumpet shaped flowers, very fragrant. The finest lily grown.

L. Lancifolium Roseum (Rose spotted).

L. Lancifolium Rubrum (Red spotted).

L. Tigrinum (Double Tiger Lily). Bright orange scarlet with dark spots.

Tulips. Owing to the late spring frosts, bedding plants cannot safely be planted before the early spring flowering bulbs are through blooming. They thrive well in almost any soil. Should be planted during October and November.

Hedge Plants

Barberry, Japanese. A low, dense shrub, with drooping branches that makes a handsome hedge or can be used to advantage for grouping on the lawn.

Privet (Amoor River). Makes a magnificent hedge. It has luxuriant, glossy leaves, is of rapid growth and can be sheared to any desirable shape without the least damage. It is the hardiest of the Privets and attractive all the year round in leaf, berry or flower. Most successfully used in landscape work, for single specimens and for grouping.

Privet (California). Most largely planted ornamental hedge. Found everywhere, and where it does not winter kill is the most satisfactory of them all. It is large leaved, glossy and almost evergreen, holding its



Tulip



Barberry

leaves here until after the holidays and sometimes throughout the entire winter. We do not recommend California Privet as absolutely hardy north of the 41st parallel of latitude. It can be sheared to any desired shape and is most used wherever small hedges are required. This variety can be put out as single specimens or for lawn grouping.

Osage Orange. Makes a splendid defensive hedge, being quick growing, a strong, sturdy, small tree with thorns that insures safety to the field it protects. It should, however, be trimmed regularly and not allowed to grow too large. In many prairie sections miles and miles of Osage Orange are in use. It is of vigorous habit and makes a rapid and dense growth.

Trees

A List of Trees Recommended for Various Purposes

For Streets, Roads and Wide Avenues: American Elm, Sugar and Silver Maple, Carolina Poplar.

For Driveways Through Lawns and in Parks: Norway Maple, Tulip Tree, Catalpa, American Linden.

Single Specimens of Large Growth to be Branched from the Ground: Birches, particularly Cut-Leaf Weeping; Austrian and Scotch Pine, Norway and Colorado Spruce, Balsam Fir.

Single Specimens of Medium Growth to be Branched from the Ground: Prunus Pissardi, Hemlocks, White Pine, Arbor-vitae.

Strong Growing Trees of Pyramidal Habit: Carolina Poplar, Balsam Fir, Pyramidalis Arbor-vitae.

Trees that Thrive in Moist Locations: American Elm, American Linden, Ash, Catalpas, Poplars and Willows.

Trees that Thrive on Dry Knolls or Poor Soils: Silver Leaf Maples and Poplars.

Best Trees for Windbreaks: Norway and White Spruce, Scotch and White Pine, Carolina Poplar and Silver Maple.

Flowering Trees: Judas Trees, White and Purple Fringe Trees, Lindens, Horse Chestnut and Catalpas.

Cut-Leaved Trees: Cut-Leaf Weeping Birch, Weir's Cut-Leaf Maple.

Purple and Scarlet-Leaved Trees: Purple-Leaf Birch, Plum, Purple Norway Maple.

Ash, White. A rapid-growing tree of fine, symmetrical outline. Used largely for street and park planting.

Birch, White. Beautiful native tree, often growing 80 feet tall. Its fine white bark and slender dark-brown branches make it very conspicuous and attractive.

Box Elder. A fine, rapid-growing tree, with handsome, light-green pinated foliage and spreading head; very hardy.

Catalpa Speciosa. A rapid-growing, beautiful tree, with large, heart-shaped leaves and pyramidal clusters of white flowers appearing late in July. Because of its quick, straight growth, it is a favorite tree for commercial planting, for posts, telephone poles, railroad ties, etc. Many plantations of these are now growing.

Chestnut, Horse. Common or white, flowering. A very beautiful, well-known tree, with round, dense head, dark green foliage and an abundance of showy flowers in early spring.

Elm, American White. The grandest of all North American forest trees. Its wide, arched top and very large form, easily distinguish it. It grows to immense size and for street, park or lawn planting, nothing is better. It is long-lived and will stand the smoke of cities without injury. No tree is more beautiful or more satisfactory.

Fringe, Purple. Very conspicuous in mid-summer, when veiled with a thick mist of dusty purple flowers, so light as to simulate wreaths of smoke. This is sometimes called "Smoke Tree."

Fringe, White. A beautiful little tree, with large, soft, heavy leaves, almost hidden in spring time by clouds of delicate, fragrant white flowers of a drooping, fringe-like character.

Linden, American. A large and handsome native tree, with fragrant flower.

Maple, Silver Leaf. A rapid-growing, soft wooded tree, that is probably planted more largely in the Central states than any other. It attains great size and is very ornamental. Recommended for street, park, lawn and cemetery use. Where quick shade is wanted, nothing is better than Silver-Leaf Maple and Carolina Poplar.

Maple, Norway. The finest of all Maples. It is hardy, though slower growing than Silver-Leaf Maple. It makes a massive tree of spreading, rounded form, with deep green and very dense foliage. For ornamental planting nothing is better.

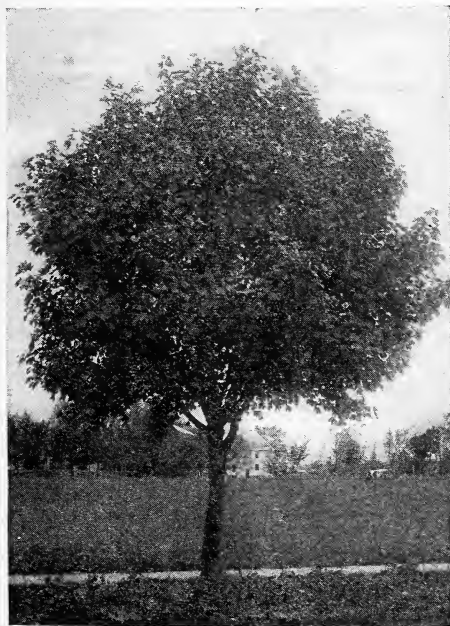
Maple, Sugar. Similar to Norway Maple, though hardly as symmetrical in growth, and obtains greater height. The native Sugar Maple orchards are gradually disappearing and the planting of Hard Maple takes its place, and many Hard Maple groves are now being started.

Crab, Bechtel's Double Flowering. This blooms in early spring, exhaling a most delightful fragrance from its masses of double pink flowers.

Mountain Ash. Very hardy and handsome, with fine clusters of scarlet berries hanging on the trees in the winter; a beautiful tree for the lawn.

Carolina Poplar. Takes front rank among best of poplars. It is one of the most rapid growers among shade trees. Its branches spread just enough to give it a symmetrical appearance. It has advantages over other shade trees because it will grow on any kind of soil, swampy or muck, light or heavy. Its roots penetrate the hardest soil; it withstands all hardships and thrives in places where others fail to live. It is easily started and gives shade in a short time. Its leaves are large and stay green till quite late in the fall.

Prunus Pissardii, Purple-Leaved. One of the most beautiful purple-leaved trees or shrubs. The leaves and shoots are of a rich, peculiarly vivid dark purple, holding the color well through the entire season. It also produces small, white, single flowers in great profusion in May, followed by black fruit of ornamental appearance. Winter pruning gives stronger shoots and larger leaves.



Norway Maple

Nut Trees

Butternut. A native American nut, closely related to the black walnut. The nuts, however, are much richer in flavor, with a hard, rough shell about twice as long as wide.

Chestnut, American Sweet. The well-known variety. A stately tree, with spreading head; when in full bloom one of the handsomest trees; produces a quantity of edible nuts.

Pecan. Northern paper-shell pecans are vastly superior to the old-fashioned kinds or the common wild variety. Shell is thin enough to crush between the fingers. Very prolific, hardy and a nut that it pays to grow.

Persimmon. This is a native American tree which is greatly relished for the luscious fruits which ripen after frost. The Japanese type produces fruit of much larger size than the American kinds, and which have a greater market value.

Walnut, Black. Valuable for nuts and timber. It is hardy and succeeds best on a rich, deep, moist soil. Too well known for long description.

Walnut, English. Native of Persia. Loftier and larger in its native country than our Butternut is with us. Nut oval and very fine.



Weeping Mulberry

Weeping Ornamental Trees

Birch, Cut-Leaf Weeping. Erect, stately, rapid-growing tree, with long, slender, pendant branches, delicately cut leaves and silvery white trunk; especially fine when near evergreens; hardy; the most elegant weeping tree on the list.

Elm, Camperdown, Weeping. A vigorous grower; leaves large, dark green and glossy, covering tree with a luxuriant mass of verdure; very desirable as an ornamental.

Mountain Ash, European Weeping. A strong grower; remarkably pendant; perfectly hardy; succeeds admirably on prairie soil.

Catalpa Bungei, or Umbrella Tree. This beautiful lawn tree is of dwarf habit, growing from 5 to 8 feet, and is of Chinese origin. Its perfect symmetry of growth and compact spreading head of large glossy-green leaves, 7 inches long by 6 inches wide, give it a decidedly tropical appearance, enabling it also to stand out in striking contrast with all other lawn trees. It takes on the umbrella shape naturally and requires no trimming. We make a specialty of these trees. Hardest ornamental tree grown.

Teas' Weeping Mulberry. Forms a perfect umbrella-shaped head, with long slender branches drooping to the ground, paralleled to the stem; very hardy. One of the prettiest small weeping trees.

Willow, Kilmarnock Weeping. One of the very finest weepers, but the stock upon which it is usually budded is not perfectly hardy in exposed situations.

Evergreens

Arbor-vitae, American. This plant is, all things considered, the finest evergreen for hedges. It is very hardy and easily transplanted, few plants failing, if properly handled. It grows rapidly and with little care, or rather by easy management, it soon forms a most beautiful hedge, very dense and perfectly impervious to the sight. It is never planted to turn stock, but it forms a most desirable and ornamental screen to divide the lawn from other grounds.

Arbor-vitae, Pyramidalis. A superb, new and hardy sort, of very compact habit; is much better than the Irish Juniper and grows in a perfect column. Largely planted in cemeteries, owing to the small amount of space it occupies. This is perhaps the most valuable Arbor-vitae in cultivation.

Balsam Fir. A handsome, compact, erect, pointed tree, with short, soft leaves which



Scotch Pine

are dark green above, silvery beneath; a good grower.

Pine, Austrian or Black. A remarkably robust hardy, spreading tree; leaves long, stiff, dark green; growth rapid; valuable for this country.

Pine, Scotch. One of the most rapid growers while young, one of the best for shelter planting in the West. It will make the best windbreak in the least time of any. It is a very valuable species.

Pine, White. One of the best evergreens. The foliage is a warm, light green, often with a bluish tinge. The leaves, in fives, are three or four inches long, soft and delicately fragrant. It does not grow as rapidly the first few years as some, but after being planted eight or ten years, it is the most rapid grower of all our evergreens.

Spruce, Colorado Blue. This species has been tested at various points on the prairies of the West and Northwest with perfect success, and during a temperature of 30 degrees below zero, stood in exposed situations uninjured. One of the hardiest evergreens and the most beautiful in color and outline. "This is the king of spruces, clothed in royal robes of silver and sapphire, a very Kohinoor among the gems of the Rockies."

Spruce, Norway. A lofty, elegant tree of perfect pyramidal habit, exceedingly picturesque and beautiful. One of the best evergreens for windbreaks.

Suggestions to Planters

Success depends in a large measure on the treatment given the stock after it is received by planters. Avoid all unnecessary exposure to the air. As soon as received, it should be heeled in, so that mellow earth will come in contact with the roots. When planting take out but few at a time. One hour of exposure to hot sun or drying wind is sure death to many trees.

Cut off the ends of all bruised or broken roots with a sharp knife, making a clean cut. If it be a standard tree for the orchard, trim it up to four or five limbs, suitable to form the top, and cut each of the side limbs back to a bud four or five inches from the body of the tree, leaving the leader or central limb from eight to twelve inches long. When there are no side limbs suitable for this purpose, the tree should be divested of all its branches and headed back to a proper height to form the top.

In properly prepared ground the holes need not be dug much larger than necessary to receive the roots in their original position, but it is always best to dig some distance below the roots and refill with surface soil. In planting in sod, the holes should be dug three times the size necessary in well plowed land. Remove all label wire from trees, that it may not cut the branches. As soon as planted, five or six inches of coarse manure or other litter should be spread over the ground about the tree, four or five feet in diameter; this will keep the surface moist, and aid the tree during dry weather.

No grass or grain crops should be raised among the fruit trees until they have attained bearing size.

If the trees are received in a frozen state, place the package unopened in the cellar, away from the frost and heat, until thawed out, and then unpack.

"Heeling in" stock received in the fall: To insure success, you have only to get the trees before freezing weather and bury them in the following manner:

Choose a dry spot, where no water will stand during the winter, with no grass near to invite mice. Dig a trench, throwing out enough dirt to admit one layer of roots below the surface, and place the trees in it, inclined at an angle of 45 degrees or more. Widen the trench, throwing the soil among the roots in position, place another layer in the trench, reclining the tops on the others, and so on until all are in the trench; then water thoroughly. Finish by throwing up more soil until the tips of the trees are fully covered. It is also well to bank up the earth around the sides to insure more thorough protection. Care should be taken to fill solid all the interstices among the roots. Too much care in doing this cannot be insisted upon, as every root which is not in close contact with the soil is sure to be killed. In the spring the trees will be on hand for transplanting at the earliest moment possible to do the work.

Fall planting is advised, however, instead of "heeling in," for experience has demonstrated that not one in ten succeed in heeling in.

Number of Trees Sufficient to Plant an Acre

1 by 1.....	43,560	8 by 8.....	680	16 by 16.....	170
2 by 2.....	10,890	9 by 9.....	537	17 by 17.....	150
3 by 3.....	4,840	10 by 10.....	435	18 by 18.....	134
4 by 4.....	2,722	11 by 11.....	360	19 by 19.....	120
5 by 5.....	1,742	12 by 12.....	302	20 by 20.....	108
6 by 6.....	1,210	13 by 13.....	257	25 by 25.....	69
7 by 7.....	888	14 by 14.....	222	30 by 30.....	48
		15 by 15.....	193		

Distances for Planting

Standard Apples	30 feet apart
Standard Pears	25 feet apart
Dwarf Pears	10 feet apart
Standard Cherries	15 feet apart
Plums, Peaches, Apricots	15 feet apart
Currants, Gooseberries, Raspberries, Rhubarb.....	4 feet apart
Quinces and Grapes	10 feet apart
Asparagus	3x4 to 6 feet apart

The number of plants required for an acre, at any given distance apart, may be ascertained by dividing the number of square feet in an acre (43,560) by the number of square feet given to each plant, which is obtained by multiplying the distance between rows by the distance between plants.

When to Spray

Apple Trees: For prevention of leaf blight, spraying with bordeaux mixture or ammoniacal carbonate of copper as soon as the leaves are full grown. To destroy aphid or plant lice, spray with kerosene emulsion as soon as the pests appear. To destroy the codling moth, canker worm and curculio, spray with Paris green or London purple, $\frac{1}{4}$ pound in forty or fifty gallons of water, soon after the blossoms fall, and again two weeks later. To destroy web worm spray with London purple or kerosene emulsion from August 1st to 10th, or as soon as pests appear. This application should be made during the middle of the day, when the worms are out of their webs and feeding on the leaves.

Cherries: Treatment same as recommended for the apple.

Pears: The pear slug can easily be destroyed by spraying with Paris green, 4 ounces to 50 gallons of water, or with kerosene emulsion, as soon as the slug begins operations. Pear and quince blight can be destroyed by spraying with bordeaux mixture. The codling moth and curculio should be treated same as recommended for apple trees.

Plums: Destroy the aphid with kerosene emulsion and a fine-spray nozzle. The curculio can be destroyed by spraying with 3 ounces Paris green to 40 gallons of water. First application should be made as soon as blossoms have fallen, and repeated at intervals of a week or ten days. Four applications should be sufficient. Other enemies of the plum will be destroyed by this method, but in all cases be particular to keep the poison and water constantly stirred.

Peaches: If attacked by the black peach aphid, spray with kerosene emulsion. The plum curculio frequently attacks the peach, in which case spray with Paris green, 2 ounces

to 50 gallons of water. Be sure to keep it well stirred and use with caution. Never use London Purple on peach trees.

For Grape Rot and Mildew: Use bordeaux mixture.

Currants and Gooseberries: To destroy the worms, spray with powdered Hellebore one ounce to three gallons of water, as soon as the worms appear. To destroy the yellow aphids, spray with kerosene emulsion early in the season. To prevent mildew use one-half ounce potassium to one gallon of water.

Spraying Formulas

Kerosene Emulsion: In making kerosene emulsion for spraying trees for lice, be sure and follow the correct method. Dissolve in two quarts of water, one quart of soft soap or one-fourth pound of hard soap by heating to the boiling point, then add one pint of kerosene oil and stir violently for from three to five minutes. This may be done by using a common force pump and putting the end of the hose back into the mixture again. This mixes the oil permanently, so that it will never separate, and it may be diluted easily at pleasure. This mixture should be diluted to twice its bulk with water, or about fourteen times as much water as kerosene. The kerosene emulsion is successful in destroying cattle lice and sheep ticks, as well as varieties of plant lice.

Bordeaux Mixture: Six pounds of sulphate of copper are dissolved in six gallons of water. In another vessel four pounds of fresh lime are slaked in six gallons of water; after the latter solution has cooled, slowly turn it into the other solution and add ten gallons of water. This, when all is thoroughly mixed and strained, is ready for use. In straining the mixture, reject all of the lime sediment, using only the clear liquid. Strain the whitewash through a coarse gunny sack stretched over the head of a barrel.

Copper Sulphate Solution: Copper sulphate, 1 pound; water, 15 gallons. Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to foliage, but must be used before the buds break. For peaches and nectarines use 25 gallons of water. Use for fungous diseases.

Paris Green: Paris green, 1 pound; water, 200 gallons; if this mixture is to be used upon peach trees, 1 pound of quicklime should be added. Repeated applications will injure most foliage, unless lime is added. Paris green and bordeaux mixture can be applied together with perfect safety. Use at the rate of 4 ounces of arsenites to 50 gallons of the mixture. The action of neither is weakened, and the Paris green loses all caustic properties. Use for insects which chew.

Hellebore: Fresh white hellebore, 1 ounce; water, 3 gallons; apply when thoroughly mixed. This poison is not so energetic as the arsenites, and may be used a short time before the sprayed portions mature. Use for insects which chew. Can also be used dry by dusting on plants.

London Purple: This is used in the same proportion as Paris green, but as it is more caustic it should be applied with two or three times its weight of lime, or with bordeaux mixture. The composition of London purple is exceedingly valuable, and unless good reasons exist for supposing that it contains as much arsenic as Paris green, use the latter poison. Do not use London purple on peach or plum trees unless considerable lime is added. Use for insects which chew.

Lime, Sulphur and Salt: Stone lime, 15 to 30 pounds; flowers of sulphur, 15 pounds; salt, 15 pounds; water, 50 gallons. Slake the lime in a small quantity of hot water, gradually adding and thoroughly stirring in the sulphur. Dilute the mixture with 12 gallons of water, and boil in an iron kettle or cook by steam in a covered tank or barrel for one and one-half hours. Then add salt, continuing the boiling for one-half hour more. Fill vessel up with water to the required 50 gallons. Strain wash through a fine mesh strainer and apply hot. In using an iron kettle, keep the mixture vigorously boiling and thoroughly stirred to prevent caking and burning of materials. Wash cooked by steam is more easily prepared and better made. Apply wash just as the buds begin to swell in the spring. Cover all parts of the tree with a heavy coat of the wash. The wash seems best adapted to orchardists who have not yet learned to use petroleum with safety or afraid that their trees are beginning to show injury from the oil, or will not stand many more applications of it. It is especially recommended for the treatment of peach trees. It is believed that the substitution of one and one-fourth pounds of blue vitriol dissolved in hot water for the salt results in quicker acting wash. This formula is known as the Oregon wash. Use for scale and fungous diseases.

Any of the agricultural experiment stations will furnish bulletins so arranged that the grower may see at a glance what to apply, when and how to make the applications.

Otwell's Tree Paint

It is patented by an expert orchardist, who thoroughly understands the needs and wants of trees and is the result of ten year's study and experiment.

It is put up in two distinct preparations—one for summer use and one for winter. Be sure to mention which you want when ordering, as neither will serve the purpose of the other. The Winter Paint closes the pores of the tree, thus enabling it to stand severe weather, while the Summer Paint opens the pores which gives the tree freer and more vigorous growth than would otherwise be possible. The action of the atmosphere will take each paint off the tree in its proper season, whether it rains or not.

THE SUMMER PAINT

The Summer Paint is composed of nine distinct and important ingredients, every one of which serves a specific purpose.

It kills aphids, bark lice, borers and all kinds of tree enemies that attack the body or the vital parts of the tree.

It prevents sun scald, one of the most damaging affections to young fruit or shade trees, and is well worth all it costs, if it did not possess one other quality.

It means instant death to all eggs that have been deposited in the tree previous to its application, and which are only waiting to hatch out and claim the tree when you are at other work and off your guard.

It enables the bark to expand, helps retain the foliage on the trees and increases the quantity and quality of the fruit. Instances can be cited where trees have bloomed for years, dropping the bloom every year until painted thoroughly with this paint, then they bore a heavy crop of fruit the following season.

It has such an invigorating effect upon the bark of the tree that the old-fashioned method of "slitting the bark" to allow it to expand becomes unnecessary. The paint enables the bark to grow and expand in a perfectly natural way, and puts it in a bright, clean, healthy, growing condition and keeps it smooth and glossy.

We have ample evidence that thorough painting with this paint will bring trees into bearing that have never borne before, and will increase the amount and quality of fruit. The paint is composed of several ingredients, some of which penetrate through the bark into the sap veins and are carried to all parts of the tree. Instead of the sap remaining in a coagulated unhealthy condition and working off its impurities, through the fruit, the ingredients in the application enliven the sap and enable it to throw off its impurities through other channels and so invigorate the tree that the effect in a few months becomes very apparent.

OTWELL'S PATENTED TREE PAINT

Protect your trees with Otwell's patented Tree Paint. Summer Paint saves them from borers, lice, aphids, sun scald, etc. Winter Paint saves them from rabbits, mice and other winter vermin. Package makes one gallon. Price \$1.50. Package makes one-half gallon. Price, 80 cents.

TREE PROTECTORS

All should use our Tree Protectors. It is a thin sheet of veneer that can be wrapped and tied around young trees, and prevents rabbits, mice and rats from barking them. The cost is small and they are easily applied, and are much more effective than paper and other home-made appliances.

Regular size, 10x18.

Price per 100.....	\$ 1.75
Price per 1000.....	11.00